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Donald Tomukorie-Devey
United States Glass Ceiling Commission

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Glass Ceiling Commission - Race, Ethnic, And Gender Earnings Inequality The Sources and Consequences Of Employment Segregation

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Comments

Glass Ceiling Report

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Glass Ceiling Commission - Race,
Ethnic, And Gender Earnings Inequality
The Sources and Consequences Of
Employment Segregation

Donald Tomukorie-Devey
United States Glass Ceiling Commission,

Race, Ethnic, And Gender Earnings Inequality
The Sources And Consequences
Of Employment Segregation

A Report To The Glass Ceiling Commission
U.S. Department Of Labor

January 1994

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TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	iii
GENERATING INEQUALITY	1
Understanding Gender and Race/Ethnic Earnings Inequality	2
Labor Supply Sources of Earnings Inequality	6
Job Search Patterns, Job Training and Job Information	11
Race/Ethnic and Gender Barriers in Hiring and Promotion	16
Hiring Discrimination	18
Stereotyping, Statistical Discrimination and Job Sorting	20
Job Training Barriers	21
Discrimination by Co-workers and Managers	22
Internal Labor Markets and Barriers to Promotion	23
Glass Ceilings?	30
Race/Ethnic and Gender Stereotyping and Earnings Inequality	32
Alternatives to Job Segregation and Job Stereotyping	37
Local Labor Market Discrimination and Economic Restructuring	39
POLICY INITIATIVES	39
Public Policy Initiatives	39
The Federal Government and Equal Employment Opportunity	44
Comparable Worth and Pay Equity	46
Training and Labor Market Policies	47
Private Policy Initiatives	52
RESEARCH INITIATIVES	57
REFERENCES	63
ACKNOWLEDGEMENTS	

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Race, Ethnic and Gender Earnings Inequality: The Sources and Consequences of Employment Segregation

EXECUTIVE SUMMARY

- Race/ethnic and gender employment segregation is widespread in the U.S. economy. The allocation of many women of all ethnic backgrounds and minority men to lower quality jobs than they can perform directly creates gender and race/ethnic earnings inequalities.
- Both racial and gender occupational segregation and earnings inequalities have been reduced since the civil rights legislation of the 1960s, but reductions in inequalities are uneven, reversible, and incomplete.

Supply Side Issues

- Differences in human capital investments in education and training by individuals explain a small proportion of the gender gap and about a third of race/ethnic earnings inequalities. There are substantial earnings inequalities that are not a function of gender or race/ethnic differences in education, labor market experience or firm tenure.
- It seems probable that the informal networks of kin, friends and acquaintances that provide individuals with information about jobs may tend to reproduce gender and race/ethnic employment segregation. It is also likely that some employers use these informal networks as screening devices to limit minority job applicants.
- Some, perhaps many, public and private employment and training agencies, including service delivery provided under the Job Training Partnership Act (JPTA), produce gender and race/ethnic earnings inequality through the provision of gender and race specific training and job search/information.

Discrimination in Hiring and Promotion

- There is substantial discrimination in hiring by employers and their agents (supervisors and managers). This discrimination is both about choosing white and/or male candidates over minority and/or female candidates and steering all candidates to jobs that are believed to be appropriate not only to their education and experience but also to their race, ethnicity or gender.

- Stereotypical beliefs by employers about race and gender affect both hiring decisions and the evaluation of job performance among current employees.
- Employer's stereotypical beliefs can lead to statistical discrimination, in which minorities and women are denied access to those jobs that provide skills or have long on-the-job training components. Skill discrimination reduces the prospects of minorities and women for career development and is reflected in widening wage inequalities as cohorts age.
- Stereotypical beliefs held by co-workers and competition for desirable jobs among workers can lead to conscious and non-conscious discrimination, exclusion from informal networks and training, and the harassment of women and minorities by co-workers, particularly when they integrate traditionally white or male work groups or workplaces.

Glass Ceilings

- Jobs typically filled by minorities and women also typically have short or no career ladders attached to them. The absence of opportunities for promotion within a segregated job structure means that few women or minorities ever compete for the top managerial and professional jobs in large corporations and government agencies.
- The higher one rises in a managerial or professional hierarchy the more likely future promotions are based on trust, social similarity and access to the informal networks of power and influence in the organization. Women and minorities are particularly disadvantaged on these dimensions in many workplaces. It is far easier to integrate lower levels of management than it is to crack glass ceilings.
- In the private sector, glass ceilings exist for most white male managers and professionals, as well as for women and minorities. The pressures for social similarity and trust are so extreme at the top of large corporations that race and gender are joined by social class and school background, corporate and foundation connections beyond the corporation, and even social club membership as screening devices in the selection of the "inner circle" of economic power. In smaller firms, of course, being a member of the owning family is the primary screening device.

Job Stereotyping

- Not only is there racial and gender discrimination against individuals, but as a result of employment segregation, jobs that become associated with particular racial or gender categories tend to be organizationally stereotyped and valued accordingly.
- As jobs become stereotypically female or minority, there is a tendency in many workplaces to provide lower wages and less opportunity for skill training and

- As jobs become stereotypically female or minority, there is a tendency in many workplaces to provide lower wages and less opportunity for skill training and promotions.
- Job segregation and discrimination can be reduced when employers institute more formal practices of employee search and evaluation for both hiring and promotion.
- Job segregation and discrimination can be reduced when corporate leadership insists on making equal employment opportunity goals and diversity planning part of the business plan. Since line managers and advantaged employees can be expected to resist desegregation and equality, active corporate leadership with goals, evaluation and sanctions for performance are necessary for EEO commitments and diversity plans to succeed.
- Regional economic restructuring, including capital investment discrimination against minority communities, contributes to and has exacerbated national race/ethnic earnings inequalities.
- There is substantial regional variation within the United States in the degree and location of race and ethnic discrimination. Attention to these regional factors may be important avenues for future federal EEO enforcement activity.

Public Policy Initiatives

- Affirmative action compliance reviews and civil suits should be broadened to include attention to exclusion from both formal and informal on-the-job training opportunities.
- Affirmative action compliance reviews and civil suits should be broadened to include attention to both co-worker harassment and the potential for backlash.
- Affirmative action compliance reviews and civil suits should challenge defenses of imperiled efficiency, and place the burden of proof for such claims upon the employer.
- Funding for both the Office of Federal Contract Compliance Programs and the Equal Employment Opportunity Commission should be increased substantially.
- Affirmative action plans and equal employment opportunity reporting by federal, state and local employment training and job search services (especially JPTA contractors) should be systematically expanded.

- State and local governments, as well as their private contractors that receive federal money should be routinely evaluated for affirmative action activity by the Office of Federal Contract Compliance Programs.
- The Office of Federal Contract Compliance Programs and the Equal Employment Opportunity Commission should strategically evaluate their efforts in terms of regional variation in the degree of employment discrimination.
- All federal agencies, but particularly the Department of Labor and the President's office, should take a moral leadership role in raising the consciousness of both employers and employees about the discriminatory processes that create gender and race/ethnic earnings inequalities and glass ceilings.
- A yearly gender and racial employment equality report card for the nation, for localities and for specific industries should be developed and widely distributed .
- Since there is some perception among businesses that equal employment opportunity reporting and federal contract compliance requirements are burdensome and exclusively punitive, government initiatives might be expanded to provide practical advice as to the best practices and potential pitfalls in voluntary corporate equal opportunity initiatives.
- Comparable worth job analyses should be pursued to reduce racial and ethnic earnings wage inequalities in firms where the minority population is large enough that organizational practices might produce race typical jobs as well as in labor markets with high levels of observed racial discrimination
- In the design of pay equity studies, it is crucially important that the skills typically associated with women are recognized as skills and treated as compensable.
- Comparable worth, pay equity conceptualizations and methodologies need to be expanded to include not only wage discrimination against classes of jobs, but also skill, authority and career ladder discrimination in the design of jobs filled primarily by women or minorities.
- Educational opportunities in minority neighborhoods must be enhanced if real and perceived skill deficits are to be eradicated. This could be accomplished through federal support of level public school funding proposals on the state level.
- Capital investment schemes that target communities with few jobs, substantial worker displacement or primarily low wage jobs need to be developed.

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- Capital investment schemes that target communities with few jobs, substantial worker displacement or primarily low wage jobs need to be developed.
- Any programs that are developed to increase the quality of skill training in the United States should be sensitive to gender and race/ethnic inequality.
- Programs to increase the efficiency of information transfer between employers and job seekers should be designed to reduce inefficiencies in the labor market, including statistical discrimination

Private Policy Initiatives

- Corporate evaluation of the diversity implications of current hiring, promotion, training and wage practices can be used to establish diversity plans with clear goals.
- Managers need to be evaluated, rewarded and punished for the diversity track record.
- The implementation of diversity plans will typically require some level of pay and skill equity adjustment.
- Corporations committed to reducing and eliminating gender and racial barriers should consider formalizing hiring and promotion criteria, particularly in areas where they have found resistance to equal opportunity or failure to meet diversity goals.
- The creation of leaner management systems may, over the long term, reduce the competitive pressures that exacerbate co-worker and supervisor resistance to diversity.
- Diversity plans should contain explicit measures to forestall and negatively sanction co-worker resistance.
- Shattering the glass ceiling requires the conscious nurturing of the careers of exceptional workers of all races and genders, and conscious attention to the additional isolation of and pressures on fast track minorities and women.

Research Initiatives

- Systematic research with existing large sample survey data to describe the level and trends in gender and race/ethnic earnings and occupational inequality are necessary.
- Systematic attention to regional and labor market variation in the degree and trends in race/ethnic inequality are sorely needed to inform policy efforts.
- The creation of Labor Market and Employment Equity Research Center, either in a federal department or a university based research institute, is required if more complete and inclusive use of existing and future data on gender and race/ethnic inequality is to occur.
- New equity survey modules, including information on job and firm characteristics of respondents, should be added to existing national surveys.
- Research on job search patterns and the types of information about jobs received through personal networks and private and public employment agencies are sorely needed.
- Research on how race and gender enter into the decision making process of employers is sorely needed. This research needs to be regionally diverse and sensitive to the level, quality, and typical sex and race composition of the jobs in question.
- If and how employers use current employee referrals and public and private employment agencies to consciously discriminate needs to be explored.
- Hiring audits can be useful tools for demonstrating the absolute level of discrimination as well as providing evidence for punitive actions against specific firms.
- EEOC reports could be used to identify exceptional companies that have reduced or eliminated gender and racial inequality for intensive case studies to highlight best practices.
- Evaluate the current and potential utility of EEOC reporting for identifying problematic employers.
- Catalog and make available to the research community archives of Department of Labor data on job sex and race segregation.

**Race, Ethnic and Gender Earnings Inequality:
The Sources and Consequences
of Employment Segregation**

GENERATING INEQUALITY

Men and women rarely work in the same job in the same workplace. Most men work in jobs with other men. Most women work in jobs only with other women. The majority of white Americans work in jobs filled only by their own racial group. African Americans, Asian Americans, Hispanic Americans, and Native Americans, "because they are small proportions of the total labor force, are more likely to have white or Anglo co-workers, but still tend to be found in workplaces where many of their co-workers share their race or ethnicity. Job level segregation, although lower now than in the past, continues to be the norm rather than the exception in U. S. workplaces.

Sex and race/ethnic segregation at work are intimately linked to workplace inequalities. White women, black women, black men, Latinos and Latinas tend to earn substantially less than white men. Similarly, white men tend to have profound advantages in access to the most desirable jobs. Jobs that have higher pay, high prestige, power over other workers, are relatively autonomous, and provide career lines and skill training are all more likely to be filled by white men. While there has been some erosion of the workplace advantages afforded to white men over the last two decades their advantages remain substantial.

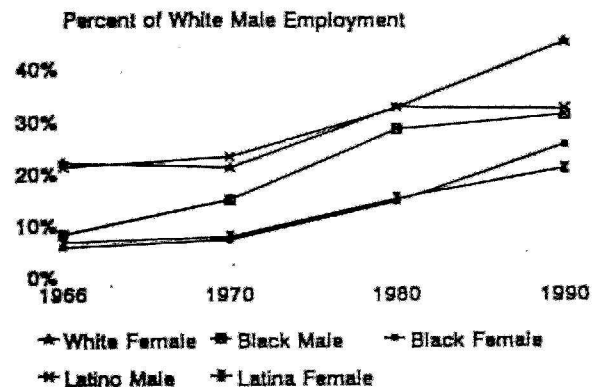
Ethnic and gender earnings inequalities and occupational segregation are produced by a complex array of historical and contemporary forces that allocate people to jobs. These include labor supply processes of socialization, the individual acquisition of education, experience and training, job search patterns, and racial housing segregation and demand side forces of hiring and promotion discrimination, race and gender stereotypes in compensation and job organization, and the consequence of community and regional variation in the degree of employment discrimination and capital investment patterns.¹ Each of these processes will be discussed in this monograph. The monograph concludes with public policy recommendations and an agenda for future research initiatives.

Understanding Gender and Race/Ethnic Earnings Inequality

Sex and race segregation are profoundly linked to the quality of jobs. This is because the best jobs in most workplaces are often filled by white males. In addition, as a job comes to be thought of as "women's work" or a "minority position" it tends to be downgraded in its organizational evaluation. Job segregation is largely the result of workplace processes rather than the labor supply decisions of individuals. If as a society we are to directly challenge sex and race/ethnic job segregation and resulting inequalities, we will have to do it within workplaces. Such efforts will not only be about reeducating and redirecting the behavior of employers, managers, and co-workers who enforce segregation but also about changing the structure of organizations. Race and gender get into the very fabric of work, influencing not only the allocation of people to jobs, but the character of jobs and workplaces themselves.

Gender and race/ethnic earnings inequalities unambiguously reflect access to desirable jobs. Public policy concerns with managerial glass ceilings in large corporations, sex segregation and comparable worth, discrimination in hiring and affirmative action, and the quality of education and training are all concerned with different aspects of the general process through which individuals find jobs and jobs provide earnings. Observed gender, race and ethnic earnings differences reflect variation in access to employment and, among the employed, variation in access to good jobs. Figure 1 reproduces Equal Employment Opportunity Commission data on gender and ethnic differences in access to managerial occupations from 1966 to 1990. The trends are clear, relative to white men there were improvements in access to managerial jobs, particularly for white and black women and black men, up until 1980, black and

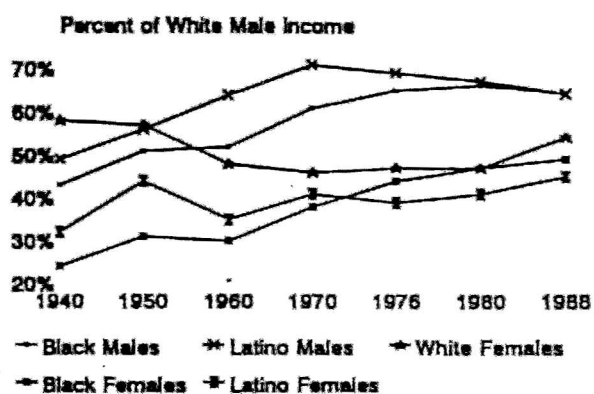
Figure 1. Black and Hispanic Men and Women and White Women Managerial Employment as a Percent of White Male Employment



hispanic males saw little improvement across the Eighties and, despite allegations of widespread reverse discrimination, substantial white male advantages in access to managerial jobs remain.²

Figure 2 shows a similar but less dramatic pattern in time trends in earnings over a longer period. Black and Latino males showed converging earnings with white males through the seventies, but stagnant or declining ratios across the eighties. Black and Latino females have shown a more general pattern of convergence toward white male earnings across the entire period, although more rapidly between 1960 and 1980, then between 1980 and 1988. White females show declines in relative earnings between 1940 and 1960, a flat pattern through 1980, and modest earnings convergence with white males across the Eighties. It is access to better paying jobs that constrains the move toward earnings equality.

Figure 2. Mean Yearly Earnings for Black and Hispanic Men and Women and White Women as a Percent of White Male Earnings



Source: Hinojosa-Ojeda, Carnoy and Daley, 1991

Figure 3 presents a time-series of measures of occupational segregation for black and white men and women. Unfortunately these statistics have not been calculated for groups other than white and black men and women.³ Occupational segregation refers to the degree to which men and women, whites and blacks are located in different occupations. Since white males are much more likely to be found in better paying jobs, as occupational segregation increases white male earnings advantages increase as well.⁴ The interpretation of the measure of occupational segregation in Figure 3 is the proportion of each group that would have to change occupations in order to equalize the occupational distributions across race or gender lines. Occupational segregation is quite high across the period shown, although both race and gender segregation have declined. These measures of occupational segregation are based on the national race and gender composition of occupations. Real

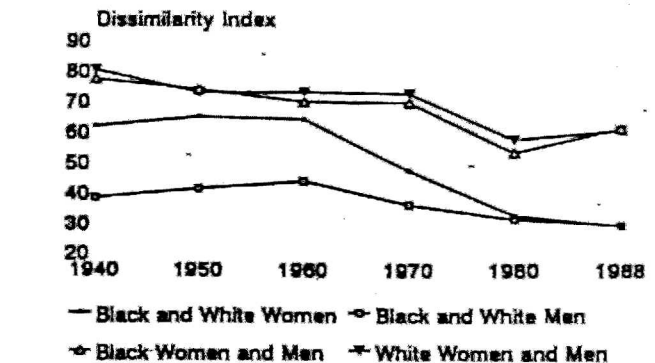
people work in jobs within firms, rather than occupations within the national economy. The level of gender and racial segregation at the job level is much higher than these occupational estimates imply.⁵ Whether or not the desegregation of jobs over time has been as dramatic as the time trends in occupational desegregation suggest is not known.⁶ The weaker move towards earnings parity, however, suggests that job desegregation has been less dramatic than occupational desegregation.

A striking aspect of Figure 3 is that the time trends in occupational segregation almost perfectly mirror the time trends in black-white earnings inequalities as shown in Figure 2. There are very large drops in the black versus white segregation indices from 1960 to 1980. This is also the period of rapid earnings growth for black males and females relative to other groups.⁷ The decline in earnings inequalities among white males and females in the post-1980 period, does not correspond to the decline in the occupational segregation index, which happened a decade earlier.

NOTES TO INTRODUCTION

1. A comprehensive introduction to the full set of labor market processes discussed in this report can be found in Tomaskovic-Devey's monograph *Gender and Racial Inequality at Work: The Sources and Consequences of Job Segregation* (1993. ILR Press).
2. The time trends are similar for Asian and Native American men and women, but distorted by the high levels of self-employment in both groups.
3. Although this report is concerned with ethnic and gender inequality generally, the vast majority of research compares the labor market activities of women and men without regard to ethnicity, or of blacks and whites (often men only) without regard to other race/ethnic groups. For this reason the report will often talk about race/ethnic inequality based upon prior research on black/white inequality. This is a clear shortcoming of prior research and should be remedied quickly in future research.
4. This statement is supported in many studies and in any description of the distribution of gender and race/ethnic groups by occupations. In addition to Figure 1 on access to managerial jobs the reader might wish to consult Natalie J. Sokoloff, *Black Women and White Women in the Professions* (1992: Routledge). This book reports that despite some increased access to professional occupations for white women, black women and black men, white male relative advantage in these occupations remains substantial and has even increased in the most elite, high paying, high status professions.
5. There are only three studies that have job level gender segregation data for a diverse economy. These three studies report that job level sex segregation is roughly a third higher than is implied by national occupational estimates. See Donald Tomaskovic-Devey, *Gender and Racial Inequality at Work*; William Bielby and James N. Baron, "Men and Women at Work: Sex Segregation and Statistical Discrimination," *American Journal of Sociology* (1986, 91:759-99); and Trond Petersen and Laurie Morgan,

Figure 3. Gender and Racial Occupational Segregation Trends



100 = Complete Occupational Segregation

Source: King, 1992

"Separate and Unequal: Occupation-Establishment Segregation and the Gender Wage Gap," forthcoming *American Journal of Sociology*. Tomaskovic-Devey has the only general population sample with race segregation data at the job level. His data suggests that national occupational segregation estimates may underestimate actual segregation by as much as fifty percent.

6. Tomaskovic-Devey in *Gender and Racial Inequality at Work* presents some speculations that gender and race segregation at the job level have declined since 1970. This is certainly consistent with current concerns over the glass ceiling which presupposes desegregation at the middle management level in some corporations. In an important study of gender occupational desegregation, however, Barbara Reskin and Patricia Roos suggests that trends in occupational desegregation typically mask job resegregation within occupations. See *Job Queues, Gender Queues: Explaining Women's Inroads Into Men's Occupations* (1990, Temple University Press). While the Equal Employment Opportunity Commission monitors firm level segregation they do so at the level of occupational groups (e.g. all managers, all professionals etc) rather than at the level of jobs, so these data are unhelpful for examinations of job segregation. A comprehensive review of sex segregation research can be found in Barbara Reskin, "Sex Segregation in the Workplace," *Annual Review of Sociology* (1993, 19:241-70).
7. M.C. King has done the most systematic work on long term trends in male/female, black/white occupational segregation and its consequences for the relative earnings of black women. King's paper in the *Monthly Labor Review*, "Occupational Segregation by Race and Sex, 1940-1988" (April 1992) is the source of the segregation data in Figure 3. Her forthcoming article in the *Journal of Economic Issues*, "Black Women's Breakthrough into Clerical Work: An Occupational Tipping Model" (December 1993) concludes that changes in the demand for black female labor, largely because of a relative shortage of clerical labor and government employment of black women is responsible for the improvement in black women's labor force positions after 1960.

Labor Supply Sources of Earnings Inequality

Supply side explanations of earnings inequalities and differences in group access to desirable jobs focus on the skills, preparations and motives of labor market entrants. When management claims that there are no qualified women or minorities to hire, they are offering a supply side explanation.

Human capital explanations suggest that some gender and race differences in job placement arise from individual differences in productivity acquired through education, labor force experience and job tenure.¹ Human capital explanations of gender and race/ethnic wage inequality have a long history of providing partial insight into the job allocation process. Inequalities that remain after human capital differences have been accounted for have generally been interpreted to represent some combination of discriminatory processes in the labor market and unmeasured but assertedly important group differences in motivation or talent.

Past research has shown that very little of the gender gap in wages is attributable to differences in education, labor force experience and tenure with the current employer. Most research concludes that only about ten percent of the wage gap is attributable to these basic human capital differences.² As we will see most of the gender gap in earnings is attributable to the quality of jobs and the gender stereotyping of jobs that men and women (of all races) have access to. Some theorists have argued that women prefer lower paid, sex typical jobs because of either past socialization or current household responsibilities.³ It is the case that women and men typically aspire to different jobs before entering the labor market.⁴ These aspirations, however, are only very weakly linked to the actual jobs people end up in.⁵ Other studies have found that non-traditional sex role socialization is not an important explanation of which women end up in traditionally male jobs.⁶ Furthermore, the argument that women prefer women's work because it is more consistent with household divisions of labor has not been supported by empirical research either. Married women and women with children are no more likely than single and childless women to be in sex typical occupations or jobs.⁷ Typically female occupations actually tend to be less flexible than

typically male jobs and have no documented compensating advantages to offset their low wage levels.⁸ Current household responsibility, particularly the presence of young children in the home is clearly tied to women's hours of work, but hours of work are not tied to whether or not a woman or man is in a sex stereotyped job. One final supply side explanation stresses social psychological differences between men and women. Men are more likely to express self confidence, the belief that they can get good jobs and to say they are willing to take risks, all of which might affect job choice or promotions.⁹ These social psychological traits, however, have not been empirically linked to wage differences.

In summary, there is practically no direct evidence of substantial supply side linkages to sex segregated employment, despite the widespread perception that these linkages are important. Since occupational segregation is so strongly implicated in the earnings gap between men and women, the supply side accounts tell us mostly about that portion of the wage gap which is attributable to differences in hours worked, but it is largely wrong in describing the processes that create sex segregated jobs and the glass ceilings that are tied to segregation processes.

Racial/ethnic earnings inequalities are more strongly tied to group differences in human capital characteristics, although substantial inequality not tied to qualifications and experience remain. Between a quarter and a half of the black-white wage gap seems to reflect differences in education and experience.¹⁰ Even more of the Hispanic-Anglo wage gap, perhaps between forty and sixty percent reflects differences in education, experience, country of origin, and language skills.¹¹ Racial/ethnic comparisons of human capital differences suggests that much inequality is produced prior to entering the labor market because of unequal access to education. It is also the case that after entering the labor market racial and ethnic minorities are more likely to face unemployment and limited access to skill enhancing labor market experience.

Historical discrimination in access to education and work experience has favored whites and has placed African Americans, Native Americans and Hispanic Americans at a disadvantage with regards to the accumulation of credentials and employment experience.

These three groups are further disadvantaged in that historical discrimination has produced *intergenerational social class* disadvantages as well, which can be expected to reproduce human capital disadvantages even in the absence of contemporary labor market discrimination.¹² Since there is evidence of contemporary racial labor market discrimination, the best description of racial wage inequality is that it is primarily a result of contemporary discrimination in hiring and promotion, and secondarily of past social practices that have lead to racial and ethnic differences in human capital acquisition.

The research seems to point out that individual level characteristics explain most wage differences from Anglos for Mexican men and women, and Puerto Rican and Cuban women, but there appears to be residual discrimination against Puerto Rican and Central American men. For all Hispanic groups, educational deficits relative to Anglos also reflect the relatively large proportions of the population who are immigrants to the United States.¹³

For gender differences in earnings, human capital explanations account for trivial proportions of the pay gap. Race and ethnic differences in earnings are more closely tied to human capital differences. The near convergence of black and white educational achievement in the late seventies and early eighties, however, followed the period of most rapid black-white earnings convergence 1967-1974. This reversal of the timing in equality gains is strong evidence against the long-run prediction of human capital theory. It was, of course, during the earlier period that political, legal and administrative efforts to end racial discrimination in the United States were at their peak.¹⁴ Similarly, gender convergence in education and labor force participation among whites was quite rapid over the last three decades but wage convergence was not. As we saw in Figure 2 there is some limited evidence for a slight narrowing of the wage gap for white women and white men in the 1980's. The long term trend, however, is for considerable stability, even in the face of tremendous growth in women's educational credentials and women's labor force commitment. Human capital predictions are just not consistent with the long term trends.¹⁵

Whether or not race/ethnic and gender differences in skill, preparedness or

productivity have anything to do with the creation of glass ceilings depends upon how you choose to define glass ceilings. Human capital characteristics are weak sources of overall race/ethnic and gender earnings inequalities. They are most powerful in limiting the array of entry level jobs that an individual is eligible for. Many jobs require more or less specific educational credentials. Others require a certain pattern of past experiences. When we redirect our focus from earnings inequalities to barriers to managerial promotion in large organizations neither general experience nor education is very important. All candidates for the top jobs in major corporations have good education, substantial experience, and are also highly productive employees. So what happens in the labor market that makes the pool of minority and female candidates for the top jobs so small? We will focus on three answers: differences in the types of jobs applied for; discrimination in hiring and promotion; and the sex and race stereotyping of jobs and individuals.

NOTES TO LABOR SUPPLY SOURCES OF EARNINGS INEQUALITY

1. The classic statement is Gary Becker's *The Economics of Discrimination* (1957, University of Chicago Press). Good discussions of the applicability of the human capital approach to gender and racial earnings inequality can be found in Glen Cain "The Economic Analysis of Labor Market Discrimination: A Survey," (in O. Ashenfelter and P. Layard [eds.] *Handbook of Labor Economics*, 1986 North-Holland), Margaret M. Marini "Sex Differences in Earnings in the United States" *Annual Review of Sociology*, (1989, 15:348-380), and in Paula England *Comparable Worth: Theories and Evidence*, (1992, Aldine).
2. Some studies have estimated that supply side processes may account for between thirty and fifty percent of the gender pay gap but these studies typically include occupational choice and employer provided training and other aspects of the work experience that probably reflect, in part at least, workplace discrimination in access to good jobs and training. This discussion is based on the review in Marini cited earlier, and Donald Treiman and Heidi Hartmann (eds.). *Women, Work and Wages: Equal Pay for Jobs of Equal Value* (1981, National Academy Press). For one of the most recent estimates see Donald Tomaskovic-Devey, "The Gender and Race Composition of Jobs and the Male/Female, White/Black Pay Gaps," *Social Forces* (1993, 72:45-76).
3. Most important in this regard has been Solomon Polachek. See for example his articles "Occupational Self-Selection: A Human Capital Approach to Sex Differences in Occupational Structure," *Review of Economics and Statistics* (1976, 58:60-69) and "Occupational Segregation: A Defense of Human Capital Predictions," *Journal of Human Resources* (1985, 20:437-40).
4. Margaret Mooney Marini and Mary C. Brinton provide a very good discussion of socialization and sex typical aspirations in "Sex Typing in Occupational Socialization," (in Barbara F. Reskin [ed.] *Sex Segregation in the Workplace: Trends, Explanations, Remedies*, 1994, National Academy Press). An important observation in this article is that sex typical occupational aspirations reflect not only parental socialization, but also how children and young adults process the messages they receive from teachers, guidance counselors, the media and general cultural knowledge about the sex segregated employment structure. Since the distribution of jobs is largely sex segregated it is not surprising that children develop sex appropriate aspirations.
5. The most thorough study in this regard has been done by Jerry Jacobs, *Revolving Doors: Sex Segregation and Women's Careers* (1989, Stanford University Press). According to this research, over a twelve year period sixty-percent of young women aspire to one or more typically male occupations.
6. See for example, Irene Padavic's research on blue collar factory work ("Attraction of Male Blue Collar Jobs for Black and White Women: Economic Need, Exposure and Attitudes," *Social Science Quarterly* 1991, 72:33-49) and Judith McIlwee and J. Greg Robinson on engineering (*Women in Engineering: Gender, Power and the Workplace*, 1992, State University of New York Press).

7. This is one of the central findings in Tomaskovic-Devey's *Gender and Racial Inequality at Work*. Similar findings are reported in Jerry Jacobs, *Revolving Doors* and in Rachel Rosenfeld "Sex Segregation and Sectors: An Analysis of Gender Differences in Returns from Employer Changes," *American Sociological Review* (1983, 48:637-55).
8. See Jennifer Glass "The Impact of Occupational Segregation on Working Conditions," *Social Forces* (1990, 68:779-796) for evidence on job flexibility. See particularly Jerry Jacobs and Ronnie Steinberg "Compensating Differentials and the Male-Female Wage Gap: Evidence from the New York State Comparable Worth Study," *Social Forces* (1990, 69:439-468) on job conditions. There are also a series of studies that explore the prediction that wage depreciation upon labor force withdrawal will be lower for typically female jobs than for typically male jobs. These studies uniformly reject the compensating differential argument. Reviews of this research are available in the England, Glass, Jacobs and Steinberg, and Tomaskovic-Devey publications already referred to.
9. Linda M. Subich, Gerald V. Barrett, Dennis Doverspike, and Ralph Alexander, "The Effects of Sex-Role-Related Factors on Occupational Choice and Salary," (in Robert T. Michael, Heidi I. Hartmann, and Brigid O'Farrell [eds.] *Pay Equity: Empirical Inquiries*, 1989, National Academy Press).
10. I base these estimates on the reviews provided in Gerald D. Jaynes and Robin M. Williams, *A Common Destiny: Blacks and American Society* (1989, National Academy Press) and Glen Cain "The Economic Analysis of Labor Market Discrimination: A Survey". Again, for one of the most recent estimates see Donald Tomaskovic-Devey, "The Gender and Race Composition of Jobs and the Male/Female, White/Black Pay Gaps."
11. I base this estimate upon the research reported by Raul Hinojosa-Ojeda, Martin Carnoy and Hugh Daley, "An Even Greater 'U-Turn': Latinos and the New Inequality," (in Edwin Melendez, Clara Rodrigues and Janis Barry Figueroa [eds.], *Hispanics in the Labor Force: Issues and Policies*, 1991, Plenum Press). There has not been sufficient research on this topic for there to be comprehensive review articles. The research on Asian and Native American earnings inequality is quite thin. Charles Hirschman and Morrison G. Wong, in one of the few articles that explore a human capital model of earnings for Asian Americans, suggest that Asian Americans, except for Chinese Americans, approached parity with white Americans by the mid-Seventies because of their high educational attainment. See "Socioeconomic Gains of Asian Americans, Blacks and Hispanics: 1960-1976," *American Journal of Sociology* (1984, 90:584-607). There is a discussion of human capital models for Native Americans in C. Matthew Snipp, "Sociological Perspectives on American Indians," *Annual Review of Sociology* (1992, 18:351-71).
12. The best historical analysis of this process can be found in William Julius Wilson's *The Declining Significance of Race* (1977, The University of Chicago Press). See also Jaynes and Williams, *A Common Destiny* and Reynolds Farley and Walter Allen, *The Color Line and the Quality of Life in America* (1987, Russel Sage Foundation).
13. See the series of papers in Edwin Melendez, Clara Rodrigues and Janis Barry Figueroa (eds.) *Hispanics in the Labor Force: Issues and Policies* (1991, Plenum Press) and George Borjas and Marta Tienda (eds.) *Hispanics in the U.S. Economy* (1985, Academic Press).
14. A good examination of the effect of equal employment opportunity political struggles upon earnings inequality has been done by Paul Burstain in his book *Discrimination, Jobs and Politics: The Struggle for Equal Employment Opportunity in the United States Since the New Deal* (1985, The University of Chicago Press).
15. In a recent paper M.C. King ("How Important Was Human Capital to African American Women's Occupational Mobility Since 1940?", forthcoming *Industrial Relations*) shows that human capital changes explain less than a quarter of African American women's growth in access to clerical jobs between 1940 and 1988. The focus on clerical jobs is important in that they represent the largest expanding employment opportunity for black women since 1940.

Job Search Patterns, Job Training and Job Information

Most analyses assume that earnings inequalities that are not explained by group differences in human capital characteristics reflect some unmeasured processes of discrimination in the labor market. Discrimination, in this context refers to employer job sorting decisions based on race/ethnicity and gender. While there is good reason to believe that discrimination based on race, ethnicity and gender is widespread there is a third explanation which has been relatively neglected in labor market research. I am referring to the information gathering process through which workers search for employers and employers search for labor.¹

The limited and generally dated survey data available suggests that most people find jobs through informal job search methods. They gather information from friends and family or directly approach potential employers. About a quarter place or answer newspaper advertisements. A small minority of people use private or public employment agencies. Black males are more likely than others (white males, black females, white females) to make direct applications to employers and to use personal contacts. Women, especially black women, are more likely to use formal job search methods. Hispanics (no gender comparisons are available) are more likely than blacks or whites to use a public employment agency and are much more likely to use a private employment agency. White males and white females are more likely than black males and black females to use no search method at all, but to simply hear about a job from personal contacts and then switch to that new job. This means that African Americans and Hispanic Americans have to put more effort into job search activity than whites. Men who don't actively search or who search without leaving their current jobs find higher wage employment. For women the use of personal networks to provide unsolicited job information does not seem to enhance wages. Direct application to employers tends to return lower wages to both men and women than other search modes.²

The use of friends and relatives to get hired into managerial occupations is interesting. People who get managerial occupations are less likely to have heard about the

job through personal contacts than are people who end up in other occupations. But among managers, white men are much more likely to use personal contacts to find managerial jobs and to receive help from someone inside the company than are black men, black women or white women. Few black women report having contacts that used some form of influence to help them obtain managerial jobs. Thus, for managerial jobs informal contacts are used more and most actively by white males.³

The use of formal methods of finding a job such as employment agencies and responding to newspaper advertisements is generally associated with lower wage offers. Since women and minorities are more likely to use formal job search strategies, this is a potential source of earnings inequality, particularly for black and white women and Hispanics.

It is also important to pay attention to the types of job information (and training) provided by formal job search strategies, particularly public and private sector employment agencies. There is some evidence that both types of agencies tend to steer candidates to perceived race and gender appropriate jobs. For example, the CETA employment program of the seventies tended to provide women with class room training and income transfer jobs, while men were more likely to receive on-the-job training or jobs that led to unsubsidized employment. CETA jobs were highly sex segregated, although job training was somewhat less segregated. Two-thirds of job trainees were placed in sex-typical occupations.⁴ A much higher proportion were no doubt in sex homogenous jobs. A recent General Accounting Office audit of the Job Training Partnership Act (JPTA) suggests that there are substantial racial and gender disparities in services in the primary federal jobs program of the eighties and nineties. Given substantial limitations in reporting, the GAO reports that 34 percent of service delivery areas had one or more statistically significant racial/gender disparities in service provision. They found that white participants were more likely to receive classroom or on-the-job training, while blacks were more likely to receive only job search assistance. While women were more likely to get classroom training than men in many areas, they were less likely to get training for high wage jobs.⁵

processes - particularly word of mouth and cold applications -- it seems highly likely that job information in both directions is highly gendered and racial in character. If employers value recommendations for new employees from current employees and their peers, then there is a high probability that same sex, same race candidates will emerge.⁸ Similarly, if labor market entrants get much of their information on job openings from acquaintances, both the homogeneity of friendship networks, and the possibility that job information is screened in terms of sex and race appropriateness probably tends to produce job applications that closely resemble the current race and sex composition of the labor force.⁹ Racial job segregation may be particularly tied to the source of job information since racial residential segregation and personal network segregation are both quite high.¹⁰ In addition, since ethnic and racial minorities are more likely to live in central cities and rural regions with limited job opportunities, information on good quality jobs may be quite scarce in the job information networks of many racial and ethnic minorities.

Although we have reason to suspect that both informal and formal job search processes reproduce gender and racial occupational segregation it is clear that we need sustained high quality research on both private and public job training/job search programs and on informal job search activity.

NOTES TO JOB SEARCH PATTERNS, JOB TRAINING AND JOB INFORMATION

1. Mark Granovetter has made the most explicit theoretical statements along these lines, see for example "Toward a Sociological Theory of Income Differences," (in Ivar Berg [ed.] *Sociological Perspectives on Labor Markets*, 1981, Academic Press).
2. This discussion is based on data collected in the Seventies through the Current Population Survey and the Panel Study of Income Dynamics. There were three brief reports in the *Monthly Labor Review*. On these issues see Mary Corcoran, Linda Datcher and Greg J. Duncan "Most Workers Find Jobs Through Word of Mouth," (August 1980); Carl Rosenfeld "Job Search of the Unemployed, May 1976," (November 1977) and "The Extent of Job Search by Employed Workers," (March 1977). The most thorough analyses of Current Population Survey Data from 1973 was done by Karen E. Campbell and Rachel A. Rosenfeld "Job Search and Job Mobility: Sex and Race Differences," *Research in the Sociology of Work*, (1985, 3:147-174).
3. Mary Corcoran, Linda Datcher and Greg J. Duncan "Most Workers Find Jobs Through Word of Mouth."
4. See Linda J. Waite and Sue E. Berryman, "Occupational Desegregation in CETA Programs," (in Barbara Reskin (ed.) *Sex Segregation in the Workplace: Trends, Explanations and Remedies*, 1984, National Academy Press. This report found few race/ethnicity differences in occupational or training segregation.
5. This report is striking in how difficult it was for the GAO to collect data from state administered service delivery areas (SDAs) on the gender and ethnic breakdowns of JPTA services. Only sixteen states could or would provide these breakdowns. See United States General Accounting Office, *Job Training Partnership Act: Racial and Gender Disparities in Services*. Report to the Chairman; Legislation and National Security Subcommittee on Government Operations, House of Representatives, 1991, GAO/HRD-91-148.

6. Most evaluations of the success of job training programs take a narrow short term economic perspective, focussing on initial wage gains or shifts from unemployment to employment. Since there is substantial steering into sex segregated occupational choices through public sector training, much gender earnings inequality is created, or at least facilitated, through these programs despite the concurrent fact that many women (and men) are better off relative to where they were before training. The most comprehensive set of analyses of these public training issues and their relationship to sex segregation in the labor forces can be found in Sharon L. Harland and Ronnie J. Steinberg, *Job Training for Women: The Promise and Limits of Public Policies* (1989, Temple University Press). A very interesting exemplar of a state level analysis of sex segregation in job training opportunities can be found in a publication of the women's advocacy group N.C. Equity called *What is a Woman Worth? North Carolina Women, Families & the Economy in Transition* (1992, Raleigh, North Carolina).
7. On the desegregation of educational opportunities see Jerry A. Jacobs *Revolving Doors*. In a recent unpublished paper Jacobs reports a disturbing slowdown in the trend toward more gender integration of college majors in the U.S. ("The Sex Typing of Academic Specialties: Trends Among College and Graduate Degree Recipients During the Eighties," unpublished paper, 1993, Department of Sociology, University of Pennsylvania).
8. It is highly probable that some employers use word of mouth or private employment agency recruitment explicitly to screen out applications by women or minorities for certain jobs.
9. There are only three studies that I am aware of that show how the source of job information and applicant information is linked to the sex or race composition of jobs. The first found that women in male dominated occupations were more likely to have gotten their information on the job from family members than other sources. Women in female dominated occupations received their job information from other women. Perhaps there is some gender appropriate screening of job information that grows stronger as the source of information becomes less familiar? This paper by Susan Hanson and Geraldine Pratt examines survey data on the job search activity of women in the Worcester, Massachusetts area. See "Job Search and the Occupational Segregation of Women," *Annals of the Association of American Geographers* (1991, 81:221-53). The second study of a large public sector employer found that the combination of job posting only in the out-of-the-way personnel office of the employer and the filling of many unposted jobs through word of mouth had the effect of limiting the diffusion of information about available jobs to the personal networks of current employees. These practices produce a pool of applicants of the same race as typical incumbent of the vacant job. See Beth Anne Shelton, "Racial Discrimination in Initial Labor Market Access," *National Journal of Sociology* (1987, 2:100-117). The third study of a sample of job seekers at a large bank found that informal networks steer people toward gender appropriate jobs. See Kevin T. Leicht and Jonathan Marx, "Does Who You Know Matter?: The Effects of Informal Job Finding Networks on Job Finding Among Men and Women," 1993, Department of Sociology, Pennsylvania State University.
10. See for example, Joe R. Feagin's *Ghetto Social Structure* (1974, R and E Associates); Reynolds Farley and Walter Allen, *The Color Line and the Quality of Life in America* (1987, Russel Sage); Douglas Massey "American Apartheid: Segregation and the Making of the Underclass," *American Journal of Sociology* (1990, 96:329-357).

Race/Ethnic and Gender Barriers in Hiring and Promotion

Although the literature on earnings inequalities that arise from supply side labor market models suggests that most of the gender earnings gap and much of the race/ethnic earnings gaps are a function of employer discrimination, the research to nail down exactly how this happens is sketchy at best.¹ There are a number of ways in which the actions of employers, supervisors, and co-workers can foster gender and race/ethnic inequalities. In this section we discuss hiring discrimination, discrimination by supervisors and co-workers, job training barriers, internal labor market segregation and glass ceiling barriers.

Hiring Discrimination

Discrimination in hiring can take a number of forms. The common sense notion of discrimination as the refusal to hire someone because they are not white or not male has been called employer taste discrimination.² This type of discrimination reflects the prejudice of employers or their agents (i.e. managers) against groups of workers or job applicants. The refusal to hire anyone except white males is probably relatively rare except in very small firms who can find sufficient workers of a single sex or race. A more reasonable conceptualization of the problem might be when two applicants apply for a job is there a preference for white males?

How much of this direct discrimination goes on? We know that the African American unemployment rate is generally twice that of white Americans.³ The Hispanic unemployment rate tends to be about fifty percent higher than the white non-Hispanic unemployment rate.⁴ White males and white females have about the same aggregate unemployment rates. If we take the unemployment rate as a rough indicator of refusal to hire based on race/ethnicity, then "refusal to hire" discrimination against African Americans is very high, against Hispanics moderate, and against women is absent.⁵ This interpretation must be approached cautiously since the regional distribution of Hispanics and African Americans is not the same as that of whites. African Americans, in particular, are most likely to live in regions of the country (the rural South and the Urban North) and residually segregated central cities where there are fewer available jobs.⁶ Among

Hispanics, Puerto Ricans in particular are concentrated in high unemployment areas of the Northeastern United States.⁷

Hiring audits seem to be the best way to get direct evidence of "hiring preference" discrimination.⁸ In two pairs of employment audits sponsored by the Urban Institute and the U.S. General Accounting Office, job applicants were matched on all characteristics except race/ethnicity and then answered newspaper advertisements randomly sampled from local papers. The first pair of audits, carried out in Chicago and San Diego, compared the treatment of Anglo and Hispanic young men by employers. They found that Hispanic job applicants were three times more likely to receive some type of unfavorable treatment during the application process and that Anglos received more interviews and job offers. Disparate treatment was highest for management jobs and lowest for service jobs. Discrimination against Hispanics was somewhat higher in Chicago than in San Diego. The authors suggest that Hispanics may be more likely to be seen as "outsiders" in Chicago. Another possible explanation is that unemployment is higher in Chicago, thereby giving employers more latitude to discriminate.⁹

The second pair of audits was carried out in Chicago and Washington, D.C. and compared white and black young men. It found that white applicants were three times more likely than black applicants to both receive favorable treatment during the application process and to get a job offer. Black applicants were also twice as likely to be steered to less desirable jobs by employers. Black applicants received more unfavorable treatment in higher paying, higher status jobs and jobs that involved substantial customer contact. The degree of discrimination against black applicants was about fifty percent higher in Washington than in Chicago.¹⁰

The second set of audits highlights another process crucial to hiring discrimination, the steering of job candidates by employers into sex or race appropriate jobs. Other research suggests that employers resist attempts by women and men to enter sex atypical jobs.¹¹

Stereotyping, Statistical Discrimination and Job Sorting

Stereotypes are generalized beliefs about groups of people which may influence employers expectations regarding individual's performance, capabilities and personalities. Stereotypes are often habitual and non-conscious, but they can strongly influence how we react to people. Gender and racial stereotypes are widespread in U.S. culture and are often used as reasons by employers to justify discriminatory hiring decisions. One of the central problems with stereotypical thinking is that it is self-reinforcing, encouraging individuals to ignore information that challenges a stereotype and remember information that confirms the stereotype. When we talk about prejudiced or discriminatory employers, we are typically referring to individuals whose hiring decisions are influenced by unexamined stereotypes rather than by a reasoned, objective evaluation of each job candidate based upon their qualifications. Even an employer who tries to give each candidate a "fair shot" may interpret information through stereotypical filters.¹² Behaviors by a white male job applicant that are interpreted by a potential employer as enthusiastic, motivated and self confident, may be seen as physically threatening performed by a black male or pushy and insensitive in the case of a female job applicant.¹³

Since stereotyping influences how behaviors are interpreted, they may impact not only hiring decisions but also evaluations regarding raises and promotions. When white men excel at a task, it typically is interpreted as the result of intrinsic skill or talent, but when women or minorities excel external attributions to "luck", "connections" or "affirmative action" are often invoked.

The success of any particular employee is not simply the product of his/her individual effort and employer's sometimes stereotypically filtered evaluations of the work, but also of the interactions with and interpretations of co-workers. For women and minorities who end up as tokens in traditionally male or white work environment, the tendency of co-workers to evaluate and work with them through stereotypical lenses is quite high.¹⁴ The practical advice on managing diversity suggests that stereotypical thinking must be challenged. An additional approach to reduce the influence of stereotyping, developed in more detail later in this report, is formal accountability in decision making.¹⁵

Although most commentators suggest that stereotyping is irrational and inefficient, the theory of statistical discrimination argues that segregation represents rational reactions of employers to different average productivity and career patterns between groups. The argument suggests that when firms employ workers with high levels of firm specific skills, then they will prefer more stable and cheaply trained labor forces. Employers may translate a preference for more productive workers into discrimination against and for whole groups of potential employees. Employers, who have limited reliable information at the individual level as to future productivity, use statistical averages, real or perceived, for groups in order to discriminate between a likely good job match and a prospective employee who is less likely to work out. Since women are often perceived as having less stable career patterns and minorities lower quality education, employers may believe that both groups have higher training costs than white men. Employers may then reserve jobs with high on-the-job training costs for white males.¹⁶

There is not much in the way of direct evidence that white males are actually more productive workers. Some economists infer that they must be more productive since they are paid more, a clearly unsatisfying logic. Direct evidence is at best anecdotal, and there is some evidence that women work harder than men, and that industrial productivity is *higher* in industries with high employment of African-Americans.¹⁷ If there are no real average group productivity differences between women and men and whites and non-whites at the aggregate level, then statistical discrimination theory can no longer claim that it is describing an efficient process. Under these conditions statistical discrimination reduces to a narrow form of discrimination linked to skill and on-the-job training exclusion.

If we reject the *assumption* of average group productivity difference, that does not mean we should reject the notion that *perceptions* of group differences are not widespread. They are. If employers *assume* that white male labor is more productive, particularly more stable and easier to train, then we would expect patterns of discrimination in hiring that would be strongly associated with the required skills and training time associated with jobs. There is some recent evidence that discriminatory processes similar to the statistical

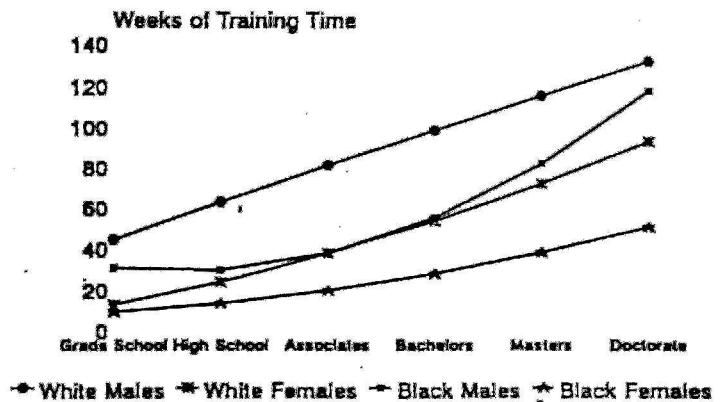
discrimination account are operating. African Americans and women are less likely to be found in jobs with long on-the-job training periods.¹⁸ There is some evidence that employers assume that all women have a statistically average job commitment level lower than men which explains observed wage differences. Similarly, statistically average discounting of the quality of African American's education by employers has been found to substantially explain black-white wage inequality.¹⁹ One study directly explored the meaning of race and ethnicity to employers. The key finding was that many employers did use race as a signal as to potential productivity.²⁰

Job Training Barriers

Statistical discrimination theory points out that employers might offer less skill enhancing training to women or minorities. Unequal access to skill training is an important source of gender and race/ethnic career wage inequality. It has often been observed that gender and race/ethnic wage inequality is lowest early in the career and increases with age.²¹

Part of the explanation for this increased disparity across careers is that many employers make significantly smaller investments in the skill training of minorities and women. In a recent Department of Labor study it was found that men received more formal and informal on-the-job training than women. Whites were as likely as minorities to receive formal training but received substantially more informal on-the-job training.²² Although not often conceived as such this is a potent form of discrimination in that it affect not only current wage but also future wages and promotion prospects. Figure 4 reports gender and racial inequality in access to skill enhancing on-the-job training for a recent sample of employees in North Carolina. Only at the very lowest and highest education levels is there partial

Figure 4. On-the-job Training Time and Education by Gender and Race, North Carolina, 1989



Source: Tomaskovic-Devey, 1993

convergence between white males and black males in average training time. Gender on-the-job training time differences, at least in this sample, were very large and invariant across education levels.

Discrimination by Co-workers and Managers

One problem with statistical discrimination theory is that it assumes that employers are the only discriminatory actors. If we assume that advantaged employees desire to keep their advantages, or that they behave and react in stereotypical ways, than we should expect that co-workers and supervisors are potential sources of discriminatory action. One reason that white male supervisor's desires for exclusion may be widespread may be that the level at which hiring is accomplished is generally close to the job operation level. So when white women, black women, or black males apply for a job, they are often potential status threats not only to the white men at that level, but also at the next highest level - the person making the hiring decision.²³

Many authors have found that sex or race segregation can be understood as a process of rank segregation in which higher skill, opportunity, or authority positions are reserved for men and or whites.²⁴ Statistical discrimination theory suggests that these outcomes reflect employers attempts to economize on training costs. Another way of understanding this exclusionary pattern is that the importance to white males of gender or race/ethnic segregation increases as the general attractiveness of jobs increase. At low levels of skill, power, or promotion opportunity we find more minorities and women. As skill, power, or promotion opportunity rise, pressures from already advantaged employees for exclusion and segregation increase and there will be fewer minorities and women *and* more segregation. Thus, the women and minorities who are found in high skill, high authority positions will tend to be in positions with other women or minorities (e.g. nursing supervisors or clergy in black denominations), in special minority issues jobs (e.g. affirmative action officer), or supervising other women or minorities.²⁵

There have been many case studies that demonstrate the reluctance of white and male co-workers and supervisors to admit minority and female workers into jobs that were

previously gender and/or race exclusive. For example, a case study of women office workers in a large utility who were encouraged by management to work in male blue collar jobs found substantial resistance by male co-workers and supervisors.²⁶ There is also evidence that when women enter traditionally male jobs the degree of sexual harassment increases substantially.²⁷ Similarly, a study that looked at the integration of African American males in a manufacturing plant in the Chicago metropolitan area, found tremendous resistance among skilled white labor to both hiring black labor and the sharing of skills with black workers. In this study it was much easier for the black workers to get hired than it was for them to get access to the more skilled jobs in the plant.²⁸

For most jobs, the actual skills are learned on the job. For many white collar jobs, particularly management jobs, doing a good job is about talking, listening and creating strategic alliances to get things done. When threatened workers refuse to share skills or interact in strained ways with women or minorities, the failure of some to excel may be blamed on qualification deficits, but are more likely to be the result of harassment and exclusion.

Internal Labor Markets and Barriers to Promotion

The problem of the glass ceiling is fundamentally about barriers to promotion. Many people are unlikely to be promoted because they do not hold jobs that are part of career ladders. An internal labor market refers to a set of firm rules and practices in which access to higher positions typically occurs through the promotion of current employees. Generally it is larger firms that create internal labor markets. In these firms managerial careers are generally organized through internal labor markets. As we have seen already, women and minorities are less likely to be initially hired into managerial positions. When the initial job in an internal labor market is at the bottom of the skill and authority hierarchy, the career ladder tends to be quite short.²⁹ Managerial and professional entry ports tend to be attached to longer job ladders. Because women and minorities are more likely to be hired into lower skilled initial jobs, they are likely to have, on average, less access to promotion opportunities.³⁰ The most comprehensive studies on this topic have focused upon

advancement in the federal civil service. Gender and race promotion differences in the Federal government seem to be largely a function of differences in job ladders, with women and minorities concentrated in lower and middle tier job ladders, and white men in upper tier job ladders.³¹

Within a managerial internal labor market, promotion is typically competitive, with promotions at lower levels in the job hierarchy primarily responsive to task competence. Promotions to higher levels increasingly reflect access to influential mentors and informal organizational networks. Women and minorities, even when successful in demonstrating task competence, often have difficulty finding mentors and getting access to the informal organizational structure.³² There is very little systematic research on minorities in management jobs and most that does exist takes discrimination from co-workers and superiors as a given. What research does exist is generally on convenience samples, generally of black male or white female managers and with limited comparisons to white males. The general conclusion is that managerial promotion becomes increasingly difficult at higher levels in the corporation, and depends at least partly upon women and minorities acting as if the discriminatory barriers and stereotyping which surrounds them do not exist. That is, women and ethnic/racial minorities must appear to fit in, even while standing out and being actively and passively discouraged in their quest for promotion. Since stereotyping of token managers is widespread, there is a very narrow band of acceptable behavior for any one who is not a white male and wishes to build a corporate management career.³³

The available research also suggests that women and minorities need to be more qualified than comparable white men in order to gain access to managerial authority and responsibility. They also are more likely to have more limited decision making authority and to supervise other women or minorities.³⁴

Glass Ceilings?

The literature reviewed so far should make it clear why it is primarily white men who reach the top ranks of the largest corporations in the United States. Most people spend their worklives far away from the job ladders that might ever allow them to reach the top

of these corporations. Discrimination in hiring and racial and gender segregation in employment insure that minority males and all females are unlikely to ever rise high enough in the corporation, have broad enough experience and have received the type of informal network support that are all required before someone reaches the very top of the largest U.S. corporations. For those few who rise high enough in the corporation to see the top, the perception that they are blocked by a glass ceiling may be accurate. No doubt, this ceiling is particularly galling in light of the partially closed doors and job ladders to nowhere that they already had to avoid and circumvent in their careers.

Past research on who gets the coveted positions above the glass ceiling suggests that very few white males make it, although almost all who make it are white male. Rosabeth Kanter provides a convincing explanation for what she calls homosocial reproduction at the top of the corporate ladder.³⁵ She explains that corporate promotion decisions become increasingly based on trust, rather than performance as you near the top of the corporate hierarchy. This makes sense in two ways. First, everyone who makes it high enough to see or suspect a glass ceiling has to be good. At these stratospheric levels in the corporation there are no poor performers, everyone is an overachiever.

The second reason has to do with the sheer immensity of what is on the line when you get to the top of a corporation worth billions of dollars. Top executives don't promote anybody to control those types of resources. Rather, they are only likely to promote someone they trust to make the same decisions they would. Thus, the pressures for trust rise as you near the top. How is trust established? One of the main criteria for most of us is social similarity. The research literature is quite clear on this point. The people who reach the top of major corporations tend to share much more than their white maleness. They tend to come from prominent families, have gone to prominent secondary schools and colleges, to be members of elite clubs, and to sit on the boards of other corporations, foundations and Universities, all in addition to being overachieving team players during their corporate careers.³⁶

Not only must those who rise to the top have substantial experience in various aspects

of the corporation's business, much of the work above the glass ceiling in large corporations has to do with nurturing the corporation's relationships with other corporations, financial capital and state policy makers. "Business scan," experience and knowledge of the environment outside of the home corporation is vital to the career of executives wishing to join the inner circle of the corporate elite.³⁷ It would seem plausible that when top management contemplates potential candidates to rise above that glass ceiling into the key policy making positions in the corporation they may take into account, in addition to trust, breadth of experience and social similarity, how effective the candidate is likely to be in dealing with people outside of the corporation. Gender and race may enter the decision here once again, especially if there is a perception that female or minority candidates would be less effective representatives of the corporation because of external prejudices. This might be a particular problem in international business dealings.

The literature on hiring and promotion discrimination suggests that there is substantial conscious and non-conscious discrimination in hiring and promotion in both the public and private sectors of the economy. Much of this information is based on case studies of specific firms and small sample hiring audits. It is impossible to tell from this literature which sources of discrimination – employer prejudice, supervisory discrimination or the preservation of privileged positions by already advantaged employees is empirically the most important.³⁸ All, however, are about access to better quality jobs, experiences and skills, and the workplace influence that determines both levels of compensation and the probabilities for advancement.

NOTES TO RACE/ETHNIC AND GENDER BARRIERS TO HIRING AND PROMOTION

1. It is possible that a substantial portion of gender and racial inequalities in access to good jobs is created by the job information flows through personal networks discussed in the previous section. The previous research on these information flows is so incomplete, however, that it may turn out in practice to be a relatively small source of gender and race/ethnic earnings inequality.
2. In standard economic theory taste discrimination is irrational since minorities and women often will work for lower wages. Only employers who can afford to pay a wage premium to white male workers can afford to discriminate. This leads to the prediction that the exclusion of women and minorities should be higher in less competitive industries and the state sector. This theoretical prediction that discrimination cannot endure in competitive markets is not supported by the empirical literature. See for example, Paula England, "The Failure of Human Capital Theory to Explain Occupational Segregation," *Journal of Human Resources* (1982, 17:338-350); Randy Hodson, *Workers' Earnings and Corporate Economic Structure* (1983 Academic Press); and Donald Tomaskovic-Devey, *Gender and Racial Inequality at Work*.
3. Reynolds Farley and Walter Allen, *The Color Line and the Quality of Life in America* (1987 Russel Sage Foundation) and Gerald David Jaynes and Robin M. Williams, Jr., *A Common Destiny: Blacks and American Society* (1989 National Academy Press).

4. Edwin Melendez, Clara E. Rodriguez, and Janis Barry Figueroa, "Hispanics in the Labor Force: An Introduction to Issues and Approaches," (in Edwin Melendez, Clara E. Rodriguez, and Janis Barry Figueroa [eds.] *Hispanics in the Labor Force: Issues and Policies*, 1989, Plenum Press).
5. Hiring preferences are, of course, going to be sensitive to labor market conditions. When a firm is growing or the general supply of labor in the local labor market is tight than employers will hire women or minorities into more and perhaps even better jobs than when competition for jobs with white male workers is more pronounced. Richard Freeman and Paul Osterman report a pair of interesting studies along these lines in *The Urban Underclass* (1991, The Brookings Institute) an important volume edited by Christopher Jencks and Paul Peterson. In the Freeman study ("Employment and Earnings of Disadvantaged Young Men in a Labor Shortage Economy") we see that black youth unemployment plummets when the local area unemployment rate goes down and their earnings rise 4 percent for every one percent drop in area unemployment rates (compared to a 2 percent rise for all youth). Similarly, Osterman ("Gains from Growth?: The Impact of Full Employment on Poverty in Boston") shows that full employment in Boston dramatically reduced black and Hispanic poverty in Boston across the Eighties.
6. See John D. Kasarda, "Urban Industrial Transition and the Underclass," *Annals of the American Academy of Political and Social Science*, (1989, 501:26-47) and Len Bloomquist, Donald Tomaskovic-Devey, Christina Gringeri, Cynthia Truelove, "Work Structures and Rural Poverty," (in Gene Summers [ed.] *Persistent Poverty in Rural America*, 1993, Westview Press).
7. See particularly, Andre Torres and Clara E. Rodriguez, "Latino Research and Policy," (in Edwin Melendez, Clara E. Rodriguez, and Janis Barry Figueroa [eds.] *Hispanics in the Labor Force: Issues and Policies*, 1991, Plenum Press).
8. In a hiring audit matched job applicants who differ only by race or gender approach an employer and differences in employer behavior that is associated with race or gender is assessed. Most audits have been carried out on jobs that are advertised in newspapers. When employers use newspaper advertisements rather than word of mouth or private employment agencies they relinquish a powerful race or gender screening mechanism. This suggests that the degree of race or gender discrimination for jobs advertised in the newspaper may be quite a bit less than in jobs typically accessed through word of mouth or employment agencies.
9. Harry Cross, Genevieve Kennry, Jane Mell and Wendy Zimmermann, *Employer Hiring Practices: Differential Treatment of Hispanic and Anglo Job Seekers*, (1990 The Urban Institute Press).
10. Margery Austin Turner, Michael Fix and Raymond Struyk, *Opportunities Denied, Opportunities Diminished: Racial Discrimination in Hiring* (1991, The Urban Institute Press).
11. Norma Winston, based on a job inquiry audit over the telephone, reports that employers will tell sex atypical applicants that the job was already filled, that they are unqualified (despite equal qualifications of male and female applicants), deny them an interview and request a resume instead, or offer a lower starting wage. She reports that one or more of these forms of discrimination happened in twenty-two percent of cases where a woman applied for a typically male job and fifteen percent of cases when a man applied for a typically female job. This research is reported in "Sex-bias Response to Telephoned Job Inquiries, Tampa, 1987," *Social Science Research* (1988, 72:121-124). A similar study done ten years earlier showed higher levels of sex typical discrimination by employers. See Richard M. Levinson "Sex Discrimination and Employment Practices: An Experiment With Unconventional Job Inquiries," (in Rachel Kahn-Hutt, Arlene Kaplan Daniels and Richard Coward [eds.] *Women and Work* 1982, Oxford University Press).
12. It should be remembered that in most personnel decisions, especially about initial hiring, the employer (or manager) has wide latitude in interpreting and evaluating the credentials of job applicants. David B. Bills, for example, has shown that employers typically have flexibility in hiring standards, discretion to adjust standards about the suitability of experience, education and job history, and, most importantly for this discussion, the evaluation of personality. See the research reported in "Educational Credentials and Hiring Decisions: What Employers Look for in New Employees," *Research in Social Stratification and Mobility* (1988, 7:71-97).
13. The social psychological literature on stereotyping is quite clear that these processes go on all the time. For introductions to this research see R.D. Ashmore and F.K. Del Boca "Sex Stereotypes and Implicit Personality Theory," *Sex Roles* (1979, 5:219-248); Kay Deaux, "From Individual Differences to Social Categories: Analysis of a Decade's Research on Gender," *American Psychologist* (1984, 39:105-115); and Thomas F. Pettigrew "The Ultimate Attribution Error: Extending Allport's Cognitive Analysis of Prejudice," *Personality and Social Psychology Bulletin* (1979, 5:461-76). For a good summary of the research on racial stereotyping see Howard Schuman, Charlotte Steeh and Lawrence Bobo, *Racial Attitudes in America: Trends and Interpretations* (1988, Harvard University Press).
14. A good description of this process is in Rosabeth Kanter's study *Men and Women of the Corporation* (1977, Basic Books). Evidence on how this stereotyping by managers and co-workers reproduce sex segregation can be found in Reskin and Roos' *Job Queues, Gender Queues*.

15. A good review of this literature with an application to a sex bias lawsuit can be found in the paper by William T. Bielby, "Sex Segregation, Gender Stereotypes, and the Impact of Lucky Stores' Personnel Policies on Women Employees' Opportunities for Advancement," (paper presented at the 1992 annual meeting of the American Sociological Association).
16. See especially the discussion in William T. Bielby and James N. Baron "Men and Women at Work: Sex Segregation and Statistical Discrimination," *American Journal of Sociology* (1986, 91:759-799). These ideas were originally developed by Kenneth Arrow in two articles "The Theory of Discrimination," (in O. Ashenfelter [ed.] *Discrimination in Labor Markets*, 1973, Princeton University Press) and "Some Mathematical Models of Race in the Labor Market," (in A. Pascal [ed.] *Racial Discrimination in Economic Life*, 1973, D. C. Heath), and by Edmund S. Phelps, "The Statistical Theory of Racism and Sexism," *American Economic Review* (1972, 62:659-666).
17. On gender see Denise and William Bielby, "She Works Hard for Her Money: Household Responsibilities and the Allocation of Work Effort," *American Journal of Sociology* (1988, 93:1031-1059). For race see Omer R. Galle, Candace Hinson Wiswell, and Jeffrey A. Burr, "Racial Mix and Industrial Productivity," *American Sociological Review* (1985, 50:20-23) and Donald Tomaskovic-Devey, "Labor Force Composition, Market Concentration, Structural Power and Industrial Productivity," (in George Farkas and Paula England [eds.] *Industries, Firms and Jobs: Sociological and Economic Approaches*, 1988 Plenum Press).
18. Donald Tomaskovic-Devey, *Gender and Racial Inequality at Work*.
19. Tony Tam and Lincoln Quillian use a model of statistical discrimination to hypothesize that employers use an estimate of expected job commitment of employees in deciding whom to hire or promote and that expected job commitment is heavily influenced by gender. They find that the male-female wage gap for a national sample can be explained as a function of an estimate of this fictitious, statistically average gendered expected job commitment ("Discrimination by Expected Turnover Risk: The Missing Link in the Gender Wage Gap," paper presented at the Annual Meeting of the American Sociological Association, Miami Florida). Although not setting out to test the theory of statistical discrimination Lanahan O'Connell, Michael Bobic and T. Alexander Smith ("Skills or Discrimination: A Test of Two Models of Black-White Income Differences," paper presented at the 1993 annual meeting of the American Sociological Association) find that the black white wage gap can be explained by human capital differences if we assume that employers discount the general skills signaled by education for black job applicants by an average of three years.
20. The study by Joleen Kirschenman and Kathryn M. Neckerman ("We'd Love to Hire Them, But...: The Meaning of Race for Employers" in Jencks and Petersen, *The Urban Underclass*, 1991, The Brookings Institution), reported that black male status was used by Chicago employers as a signal of poor education, 'lower class' background, and street corner attitude problems. Successful black male job applicants had to counteract the statistical discriminatory assumptions employers made.
21. Melvin E. Thomas, Cedric Herring and Hayward Derrick Horton, "Discrimination Over the Life Course: A Synthetic Cohort Analysis of Earnings Differences between Black and White Males, 1940-1990," Unpublished paper, 1993, Department of Sociology, Lehigh University; Rachel A. Rosenfeld, "Women's Occupational Careers: Individual and Structural Explanations," *Sociology of Work and Occupations* (1979, 6:283-31).
22. Thomas Amirault, "Training to Qualify for Jobs and Improve Skills, 1991," *Monthly Labor Review* (1992, 115:31-36).
23. See for example, Patricia A. Roos and Barbara F. Reskin "Institutional Factors Contributing to Sex Segregation in the Workplace," (in B. Reskin [ed.] *Sex Segregation in the Workplace: Trends, Explanations, Remedies*, 1984, National Academy Press) and Heidi Hartmann, "Capitalism, Patriarchy and Job Segregation by Sex," (in M. Blaxall and B. Regan [eds.] *Women and the Workplace*, 1976, University of Chicago Press).
24. The research which reports these patterns for both race and gender are so numerous and so consistent that only a representative listing can be made here. The central and stable fact is that as the quality of the job increases, almost no matter how you define a quality job, white males are more likely to be found in those jobs and other groups less likely. Edna Bonacich, "Advanced Capitalism and Black/White Race Relations in the United States: A Split Labor Market View," *American Sociological Review* (1976, 41:34-51); Peter Doeringer and Michael Piore, *Internal Labor Markets and Manpower Analysis* (1971, D. C. Heath); Reynolds Farley and Walter Allen, *The Color Line and the Quality of Life in America* (1987, Russel Sage); Charles Halaby "Job-specific Sex Differences in Organizational Reward Attainment: Wage Discrimination vs. Rank Segregation," *Social Forces* (1977, 58:108-127); Randy Hodson, *Workers' Earnings and Corporate Economic Structure* (1983, Academic Press); Arne Kalleberg and Kevin Leicht, "Jobs and Skills: A Multivariate Structural Approach," *Social Science Research* (1986, 15:269-296); Arne Kalleberg, Michael Wallace, and Robert Althaus, "Economic Segmentation, Worker Power, and Income Inequality," *American Journal of Sociology* (1981, 87:651-683); Robert L. Kaufman, "The Impact of Industrial and Occupational Structure on Black-White Employment Allocation," *American Sociological Review* (1986, 51:310-323); Stanley Lieberson, *A Piece of the Pie: Blacks and White Immigrants Since 1880* (1980, University of California Press); Charles W. Mueller, Toby L. Parcel, and Kuzuko Tanaka, "Foreclosures in Authority Outcome of Black and White Supervisors," *Social Science Research* (1989, 18:1-20); Toby Parcel and Charles Mueller, *Ascription and Labor Markets: Race and Sex Differences in Earnings* (1983, Academic Press).

Tomaskovic-Devey systematically shows the connection of these workplace inequalities to the gender and race composition of jobs in "Labor-Process Inequality and the Gender and Race Composition of Jobs," *Research in Social Stratification and Mobility* (1993, 12:215-247).

25. This is one of the central findings in Tomaskovic-Devey, *Gender and Racial Inequality at Work*. Exclusionary processes are very strong for both gender and race in that study. Segregation tendencies by gender are strongest for the best positions. Racial segregation is strongest among skilled manual jobs, and declines somewhat among jobs that require college degrees. I interpret this to reflect the smaller demographic threat minorities pose to whites in jobs that require high levels of education. Reskin and Roca, *Job Queues, Gender Queues* discusses extensively the supervisory pattern.
26. See Irene Padavic's work including, "Attraction of Male Blue-collar Jobs for Black and White Women: Economic Need, Exposure, and Attitudes," *Social Science Quarterly* (1991, 72:33-49) and Barbara Reskin and Irene Padavic "Supervisors as Gatekeepers: Male Supervisors' Response to Women's Integration in Plant Jobs," *Social Problems* (1988, 35:536-550).
27. A review of the literature, that discusses sexual harassment in a sophisticated way, has been written by Maxine Atkinson and Luther Otto, "Sexual Harassment: An Agenda for Sociological Inquiry," (paper presented at the 1992 annual meeting of the American Sociological Association). They discuss a number of studies that report higher levels of sexual harassment when women enter traditionally male jobs. The most sophisticated research reaching this conclusion was carried out on government workers. See U.S. Merit Systems Protection Board, "Sexual Harassment in the Federal Government: An Update," Report to the President and Congress of the United States (1988, Government Printing Office).
28. See Bruce Williams, *Black Workers in an Industrial Suburb: The Struggle Against Discrimination* (1987, Rutgers University Press). There have been a series of case studies which have shown the resistance of male and white workers and supervisors to sex and race integration including Cynthia Cockburn, *Machinery of Dominance: Women, Men and Technical Know-How* (1988, Northeastern University Press) and *In the Way of Women: Men's Resistance to Sex Equality in Organizations* (1991, ILR Press); Samuel Cohn, *The Process of Occupational Sex-Typing* (1985, Temple University Press); John P. Fernandez, *Racism and Sexism in Corporate Life* (1981, D.C. Heath); Richard F. America and Bernard E. Anderson, *Moving Ahead: Black Managers in American Business* (1978, McGraw-Hill); Rosabeth M. Kanter's *Men and Women of the Corporation* (1977, Basic Books).
29. For overviews of research and conceptualization on internal labor markets and career processes see the reviews by Robert P. Althausen ("Internal Labor Markets," *Annual Review of Sociology*, 1989, 15:143-61) and Rachel A. Rosenfeld ("Job Mobility and Career Processes," *Annual Review of Sociology*, 1992, 18:39-61).
30. The only study that looks directly at the probability of promotion across the whole labor force is by Barbara Reskin and Arne Kalleberg ("Sex Differences in Promotion Experience in the United States and Norway," paper presented at the International Sociological Association, Research Committee 28 Conference, August 1993, in Durham, NC). This paper reports for 1991, that 48% of men, but only 34% of women report ever having been promoted by their current employer. Unfortunately, it does not examine race/ethnic differences in promotion.
31. See Thomas A. DiPrete and Whitman T. Soule "Gender and Promotion in Segmented Job Ladder Systems," *American Sociological Review* (1988, 53:26-40) and Thomas A. DiPrete, *The Bureaucratic Labor Market: The Case of the Federal Civil Service* (1989, Plenum Press). Similar findings for New York State government employment is reported by Ronnie Steinberg, Lois Haignere and C.H. Chertos, "Managerial Promotions in the Public Sector," *Work and Occupations*, (1990, 17:284-301).
32. Systematic and comprehensive, although dated, studies of these barriers can be found in John P. Fernandez, *Racism and Sexism in Corporate Life* (1981, D.C. Heath) and Richard F. America and Bernard E. Anderson, *Moving Ahead: Black Managers in American Business* (1978, McGraw-Hill). In a clever study which compares earnings between male and female executives Robin Bartlett and Timothy Miller ("Executive Earnings by Gender: A Case Study," *Social Science Quarterly*, 1988, 69:892-909) find that gender related differences in access to job related information through informal networks as well as the organizational context of employment are significant sources of the substantial gender earnings inequalities between male and female executives. Karen Stephenson and Valdis Krebs present a remarkable illustration on the isolation of minorities and women in the informal work, support and information networks of a group of managers and professional in a financial services company ("A More Accurate Way to Measure Diversity," *Personnel Journal*, 1993, 72:66-74).
33. The best review of the scant available research on black managers can be found in Nancy DiTomaso and Donna E. Thompson, "The Advancement of Minorities Into Corporate Management: An Overview," *Research in the Sociology of Organizations* (1988, 6:281-312). On the experiences of women managers as they approach the glass ceiling see Ann M. Morrison, Randall P. White and Ellen Van Velsou, *Breaking the Glass Ceiling: Can Women Reach the Top of America's Largest Corporations?* (1992, Reading, Ma: Addison-Wesley Publishing). Rosabeth Kanter provides the classic description of the stereotyping and role encapsulation that confronts women and minorities in corporate internal labor markets in *Men and Women of the Corporation* (1977, Basic Books).

34. This is demonstrated in the work of Charles W. Mueller, Toby Parcel and Kazuko Tanaka ("Particularism in Authority Outcomes of Black and White Supervisors," *Social Science Quarterly*, 1989, 18:1-20) and Barbara F. Reskin and Catherine E. Ross ("Job Authority and Earnings Among Managers: The Continuing Significance of Sex," *Work and Occupations*, 1992, 19:342-365). In a study of upper tier employees in a large manufacturing firm Barry A. Gerhart and George T. Milkovic report that men typically received larger promotion benefits than women from positive performance ratings by their managers ("Salaries, Salary Growth, and Promotions of Men and Women in a Large, Private Firm," in Robert T. Michael, Heidi I. Hartmann, and Brigid O'Farrell [eds.] *Pay Equity: Empirical Inquiries*, 1989, National Academy Press). Corroborative findings can be found in Tomaskovic-Devey "Labor-Process Inequality and the Gender and Race Composition of Jobs," *Research in Social Stratification and Mobility* (1993, 12:215-247) and Alison M. Konrad and Jeffrey Pfeffer "Understanding the Hiring of Women and Minorities in Educational Institutions," *Sociology of Education* (1991, 64:141-157).
35. Rosabeth Moss Kanter, *Men and Women of the Corporation*. Since it is almost all white men perhaps we should refer to the process as anglohomosocial reproduction.
36. The substantial research demonstrating this homogeneity is summarized in Michael Useem, "Corporations and the Corporate Elite," *Annual Review of Sociology* (1980, 6:41-77) and Vincent Roscigno, "Conservative and Critical Approaches to the Power Structure Debate: An Assessment and Critique of Empirical Findings," *Journal of Political and Military Sociology* (1992, 20:63-81).
37. Michael Useem, *The Inner Circle: Large Corporations and the Rise of Business Political Activity in the U.S. and U.K.* (1984, Oxford University Press).
38. I find in *Gender and Racial Inequality at Work* that racial exclusion from high paying jobs is most often accomplished through discrimination around access to skill enhancing jobs. Gender exclusion is not only linked to job skill, but also to career ladders and managerial power. The interpretation of this pattern that I offer is that racial discrimination is more closely tied to employer's 'statistical' discrimination based on skill. Gender discrimination is more closely linked to advantaged employee's ability to monopolize access to favorable jobs. There is not sufficient research on other samples or in other regions to reach firm conclusions as to the generalizability of this interpretation.

Race/Ethnic and Gender Stereotyping and Earnings Inequality

So far we have emphasized the processes that tend to steer women and minorities into lower level jobs. This steering is intimately associated with the widespread segregation in employment discussed at the beginning of this report. Women and minorities do not merely end up in jobs that are of worse quality than they might be able to handle because of their personal qualifications, but they tend to end up in jobs where their co-workers share their race, ethnic and gender status. When a job becomes racially or gender stereotyped in a workplace, that stereotype can have important consequences for the organizational evaluation of the worth of that job and how the work itself becomes organized.

It is well established that as the proportion female and proportion minority in an occupation rise, wages tend to fall.¹ Part of this wage penalty represents the lower skill, lower opportunity jobs that women and minorities gain access to. Part of the sex and race composition effects on earnings, however, are a result of the devaluation of work typically done by women and minorities.² The gender and racial stereotyping of work is widespread. In addition to the national occupational studies referred to above, almost every study that has looked for effects of the sex composition of jobs upon compensation in workplaces has found that even after job skill characteristics have been statistically controlled for, job earnings are depressed when jobs become stereotypical female.³ The evidence is more mixed for the effect of race composition on job earnings. The research suggests that jobs become stereotypically black or minority jobs less often than jobs are stereotyped by gender, but that when racial stereotyping occurs wages are depressed.⁴

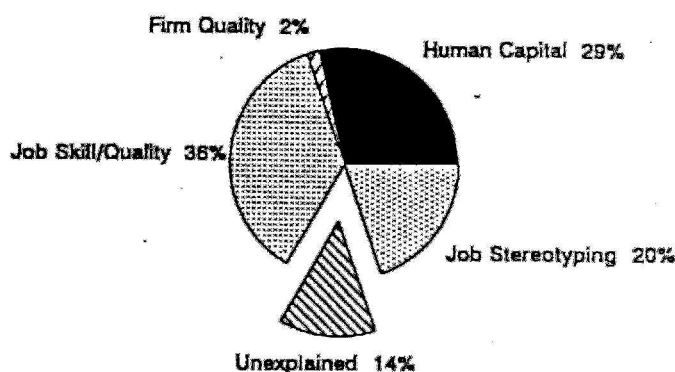
The public policy agenda referred to as comparable worth or pay equity reacts to this widespread devaluing of typically female or minority work by attempting to adjust salary scales to purge them of this discrimination against jobs. This is accomplished by first evaluating the actual skills used in jobs and required of employees, and then evaluating pay scales to see if the sex composition of jobs affects wages over and above skill levels.⁵ One problem with the comparable worth approach to job stereotyping is that it assumes that required job skills are independent of sex and race stereotypes. This is unlikely to be the

case. As we saw earlier access to job training and managerial power are intimately tied to gender and race. There is substantial evidence that gender and racial stereotypes operate not only to depress wages, but also to influence the very design of work itself.⁶

It would be useful to summarize the relative contributions of human capital, discriminatory exclusion from firms, job segregation in terms of job skill and quality, and the stereotypical devaluing of work done typically by women or minorities to the gender and race/ethnic earnings gaps. Unfortunately, no study has addressed all of these issues for a national sample or for diverse ethnic groups. One piece of research has looked at black-white and male-female wage gaps across all four dimensions.⁷ That study led to the estimates of the distribution of the wage gaps between blacks and whites and men and women reproduced in the pie charts in Figures 5 and 6.⁸

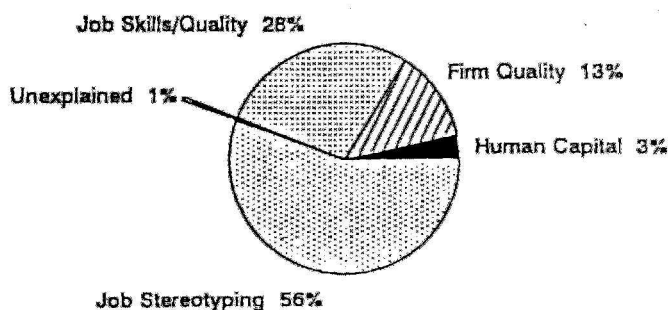
The most important source of black-white wage inequality was job skill/quality discrimination (36%), followed by human capital differences between blacks and whites (29%) and the racial stereotyping of jobs (20%). Discriminatory exclusion from firms that paid higher wages was a small part of the wage gap (2%) and some residual racial wage inequality was not accounted for (14%). The three types of discrimination (firm, job skill and race stereotyping) together account for 58% of the wage

Figure 5. Sources of White-Black Wage Gap, North Carolina Employees, 1989



Source: Tomaskovic-Devey, 1993

Figure 6. Sources of Male-Female Wage Gap, North Carolina Employees, 1989



Source: Tomaskovic-Devey, 1993

gap between blacks and whites.⁹

Figure 6 shows that the largest source of the gender wage gap is the sex stereotyping of jobs which leads to lower wages (56% of the wage gap). This is followed by job skill/quality discrimination in access to jobs (28%) and discriminatory exclusion from higher wage firms (13%). Human capital differences between men and women explain a very small part of the wage gap in this study (3%), and all except one percent of the male/female wage gap is accounted for. The three types of discrimination (firm, job skill and gender stereotyping) together account for almost all of the wage gap between men and women.¹⁰

Alternatives to Job Segregation and Job Stereotyping

There are powerful pressures, some conscious such as exclusionary pressures from advantaged employees and others taken for granted such as sex or racial matching to stereotypically appropriate jobs, that create job segregation by race and gender. In addition, there are powerful tendencies, for jobs associated with a typical race or gender for wages to rise or fall reflecting the perceived social "worth" of women and men, whites and non-whites. None of these pressures is inherently economically efficient, all are socially destructive.

There is some good news in this story. These inequalities can be changed. This is most clear when we look at the role of the federal government in promoting equal employment opportunity. The level of gender and racial segregation and wage inequality has been reduced over the last thirty years. In the period between 1960 and 1980, when the federal government was most aggressive in implementing new rules and monitoring private sector compliance with equal employment opportunity guidelines, we saw the greatest progress.¹¹ The substantial inequalities that remain may occasionally lead us to doubt the efficacy of federal action. A look back to the world of 1960 when racial and gender segregation and discrimination were not only legal, but expected, tolerated and even supported by law is a useful corrective to the doubts instilled by current inequalities.¹² The data for the eighties suggests, however, that federal enforcement of equal opportunity initiatives can wax and wane. When it wanes gender and race/ethnic inequalities may grow,

as pressures for exclusion and stereotypical thinking reemerge.¹³

A number of studies provide evidence that race and sex segregation decline in firms with more formalized employment relations. Employment relations that rely on traditional assumptions and unmonitored interaction patterns are more likely to produce discriminatory workplace practices. When line managers are accountable to both employees and upper management in terms of formal rules, exclusionary practices, whether based on competition for good jobs or stereotypical thinking, are less common. When the employment relation is characterized by formal job descriptions, including explicit listings of required credentials and experience, where employees are seen as having rights as well as duties (often through an employee handbook or union contract), and when job openings are formally advertised or posted before anyone is hired or promoted, traditional exclusions on the basis of sex or race are less likely to occur.¹⁴

The other organizational characteristic that seems to be important in breaking glass ceilings and reducing earnings inequalities is the character of corporate leadership. If top management, or owners in the case of small businesses, are aggressive in promoting equality of opportunity than it can happen. In the absence of aggressive leadership from the top, successful backlash and resistance from advantaged employees, including line management, should be expected. This seems to be particularly true for corporate efforts to smash or at least raise glass ceilings. Since so much of managerial advancement is dependent upon similarity, trust, and access to informal networks of influence, top management must make explicit that it expects women and minorities to advance. On the other hand, if typically female or minority jobs have traditions of low wages and low training investments by the corporation, line management requests for increased pay rates or operating budgets to reduce past inequities may threaten their career prospects unless the requests are encouraged by corporate leadership. In the absence of aggressive leadership from the top, equal employment opportunity goals become platitudes rather than strategies for reducing segregation and inequality.¹⁵

Because equal opportunity is not a supply side phenomena, but instead reflects

organizational dynamics including the sex and race stereotyping of employees and of jobs, a comprehensive organizational plan to reach equal opportunity goals must typically be developed. These plans need to specify goals, allocate adequate resources for both managing the transition and training employees and managers, and provide a timetable which is periodically checked for progress. Managers must be held accountable for meeting equal employment opportunity goals. Because backlash and resistance from advantaged employees can be anticipated, it is important that everyone realize that equal opportunity is a business objective, not a social welfare program and that there are consequences for failure to meet this business objective.¹⁶

NOTES TO RACE/ETHNIC AND GENDER STEREOTYPING AND EARNINGS INEQUALITIES

1. The evidence for this proposition is well known and has been repeated many times. Some of the most prominent examples include Donald Treiman and Heidi Hartmann, *Women, Work and Wages: Equal Pay for Jobs of Equal Value* (1981, National Academy Press); Elaine Sorenson "Measuring the Effect of Occupational Sex and Race Composition on Earnings," and Toby Parcel, "Comparable Worth, Occupational Labor Markets and Occupational Earnings: Results from the 1980 Census," both in Robert T. Michael, Heidi Hartmann and Brigid O'Farrell (eds.) *Pay Equity: Empirical Inquiries* (1989, National Academy Press); and Paula England, George Farkas, Barbara Stanek Kilbourne, and Thomas Dou, "Explaining Occupational Sex Segregation and Wages: Findings from a Model with Fixed Effects," *American Sociological Review* (1988, 53:544-558). The England et al. article is particularly noteworthy in that their statistical models effectively rule out the possibility that any unmeasured individual level heterogeneity in productivity related characteristics accounts for the occupational sex composition effect.
2. Virtually all of the research on race composition has focussed on African-Americans. Only one study, Paula England's monograph *Comparable Worth: Theory and Evidence* (1992, Aldine deGruyter), to my knowledge examines the impact of Hispanic occupational composition on earnings. England finds that as the Percent Mexican in an occupation grows earnings decline. The effect seems to reflect the low wages associated with agricultural employment.
3. The best review of these studies can be found in Paula England's book *Comparable Worth*. Three of the most thorough case studies are Jerry Jacobs and Ronnie Steinberg, "Compensating Differentials and the Male-Female Wage Gap: Evidence from the New York State Comparable Worth Study," *Social Forces* (1990, 69:439-468); James N. Baron and Andrew E. Newman, "For What it's Worth: Organizations, Occupations and the Value of Work Done by Women and Non-whites," *American Sociological Review* (1990, 55:155-175); and William P. Bridges and Robert L. Nelson, "Markets in Hierarchies: Organizational and Market Influences on Gender Inequality in a State Pay System," *American Journal of Sociology* (1990, 95:616-659).
4. See the extensive discussion in Donald Tomaskovic-Devey, *Gender and Racial Inequality at Work*. On the other hand, Baron and Newman, "For what it's worth..." find that the race composition effect on wages is actually stronger than the gender composition effect in the California state civil service system. Pamela Stone and Susan Wicler report a similar finding in their paper "Estimating Comparable Worth Paylines: Results from Alternative Methods and Implementations," paper presented at the 1993 American Sociological Association meeting. They look at data from a pay equity study of a large Northeastern city with a substantial minority presence. In the pay structure of that city the penalty associated with a job becoming a typically minority job was five times higher than the wage penalty associated with the gender composition of the job. Comparable worth is a potentially important policy avenue for reducing race and ethnic wage inequalities in firms and labor markets where the minority population is large enough that organizational practices might produce race typical jobs.
5. Again see Paula England's *Comparable Worth* for the best exposition of these ideas and evaluation of the efficacy of the public policy.
6. Jennifer Glass for example shows that occupations with high proportion female tend to have less flexibility in their work. See "The Impact of Occupational Segregation on Working Conditions," *Social Forces* (1990, 68:779-796). Similarly, Tomaskovic-Devey finds that as percent female and percent black in the job increase jobs are designed with less autonomy, task complexity, managerial power and access to internal labor markets, even after statistical controls for on-the-job training ("Labor Process Inequality...").

7. Hourly wage gaps are always much smaller than yearly earnings gaps because they ignore inequalities that arise from discriminatory barriers that increase unemployment spells and reduce access to full time work and supply side differences in labor supply.
8. See Donald Tomaskovic-Devey, "The Gender and Race Composition of Jobs and the Male/Female, White/Black Pay Gaps," *Social Forces* (1993, 92:45-76). In these charts job skills/quality refer to training time, job complexity, job autonomy, and managerial authority. Firm quality refers to firm sector, size and conglomerate status. Human capital refers to individual education, experience and tenure with the current employer. Job stereotyping refers to the sex and race composition of jobs.
9. It is possible that this study underestimates the degree to which blacks and women were excluded from higher wage firms since it had relatively poor measures of firm characteristics. Because this study was done on a North Carolina sample it is not possible to conclude if the pattern of results would be the same in other states, and particularly outside of the U.S. South.
10. The finding that about 85% of the gender wage gap is associated with job segregation (job skill plus job stereotyping) is replicated in the only other study that has both wage and job sex composition data for a general sample of the labor force. See Trond Petersen and Laurie Morgan, "Separate and Unequal: Occupation-Establishment Segregation and the Gender Wage Gap" forthcoming in *American Journal of Sociology*.
11. While there are not doubt multiple causes of the reductions in segregation and earnings inequalities over the period most analysts agree that equal employment opportunity legislation, enforcement and normative expectations were important sources of these changes, particularly for managerial and profession occupations in the federal civil service and large corporations in the United States. Some of the most comprehensive studies include Thomas DiPrete and David B. Grusky, "Structure and Trend in the Process of Stratification for American Men and Women," *American Journal of Sociology* (1990, 96:107-43); James P. Smith and Finnis R. Welch, "Affirmative Action and Labor Markets," *Journal of Labor Economics* (1984, 2:269-301) and *Closing the Gap: Forty Years of Economic Progress for Blacks* (1986, RAND). We do not have direct evidence, however, of how seriously employers have responded to these three pressures for equal employment opportunity. Some commentators have suggested that the Office of Federal Contract Compliance Program's requirements that federal contractors file and justify affirmative action goals has been more effective at motivating large employers to reduce discriminatory barriers than either EEOC reporting requirements or the threat of equal employment opportunity civil suits. These conclusions are largely speculative and policy oriented research into what motivates large and small employers to desist from discriminatory practices might be a useful base for future policy innovations and the targeting of federal effort.
12. This is particularly apparent when we think of the importance of federal action in tearing down state sanctioned racial segregation in the Southern United States across this period. For useful accounts of this process see Jack M. Bloom, *Class, Race and the Civil Rights Movement* (1987, Indiana University Press) and David James, "The Transformation of the Southern Racial State: Class and Race Determinants of Local State Structures," *American Sociological Review* (1988, 53:191-208).
13. The Australian case is useful in this regard. In the Seventies, Australia implemented an economy wide comparable worth program, narrowing the wage gap between men and women by ten percent by purging the occupational wage structure of the effect of percent female, after controlling for occupational skill requirements. Seven years after the one-time adjustment the gender stereotyping of occupations had crept back into the wage structure of the economy. See the discussion in Mark R. Killingsworth's *The Economics of Comparable Worth* (1990, W. E. Upjohn Institute).
14. These conclusions are based on findings reported in Tomaskovic-Devey, *Gender and Racial Inequality at Work* and previous research cited in that book. One of the most interesting studies which points to the importance of formalization is Judith McIlwee and Greg Robinson's study of the careers of the first large cohort of women engineers in California. Many of the women they studied were employed in two very large firms. In one high-tech firm the corporate culture was dominated by engineers. These mostly male engineers tended to be young and were relatively "liberated" in their gender role expectations, the technology and competition for projects and promotions was fierce, and women engineers rarely got good projects or promotions. In contrast, the second firm was dominated by non-engineering managers who managed through formal procedures. This firm was much older, the male engineers tended to be conservative about the role of women and there was more sexual harassment than in the high tech firm, but women were more likely to be promoted and to have lead roles on major projects. In this case who controls competitive promotions and job assignments, white male co-workers or formal employment rules seemed to make quite a difference in women's career opportunities. See *Women in Engineering: Gender, Power and the Workplace* (1992, SUNY Press).
15. James W. Edwards Jr. makes this point about the role of corporate leadership in creating the organizational environment for minority advancement and success in management,
"Corporations cannot manage attitudes, but they can manage behavior with accountability, rewards and punishment, as in all other important areas of concern."
in "Black Managers: The Dream Deferred," *Harvard Business Review* (1986, 64:84-93). On the importance of top corporate leaders setting clear behavioral expectations to foster racial and gender equality and breach glass ceilings see also John

Fernandez *Racism and Sexism in Corporate Life* (1981, D.C. Heath), Cynthia Cockburn, *In the Way of Woman: Men's Resistance to Sex Equality in Organizations* (1991, ILR Press), and Tomaskovic-Devey, *Gender and Racial Inequality at Work*.

16. The interested reader might look at some of the many books on managing diversity in the corporation. Some are more conscious than others of the barriers imposed by segregated employment structures, all stress the importance of coherent business plans and sanctions for success and failure. A prominent example in this genre is Gisele Asmund, *Women Managers: Changing Organizational Cultures*, (1988, John Wiley & Sons). Most of the activity in this area is carried out by private diversity planning and management succession consultants.

Local Labor Market Discrimination and Economic Restructuring

It is well known that the degree of racial inequality in the U.S. varies across regions. In general, in regions with large minority groups the pressures for discriminatory labor market practices and the ability to create segregated employment structures are greatest. The research literature shows both historically and contemporarily that as the percent Black, Hispanic and Asian in the local labor market increase so does discrimination. Higher educated whites seem to reap the largest benefits from this increased discrimination, probably because discrimination against minorities keeps wages down among the white working class, but also reserves many of the best jobs for whites.¹

In addition, there is evidence to suggest that, both historically and currently, local businesses have sometimes profited economically and politically from racial and ethnic divisions in U.S. society. Certainly, the modern racial history of some parts of the U.S. South, including the struggle over the civil rights movement and voting rights is a well known example.² There is also evidence that the racial composition of an area is an important consideration for many firms in making decisions about capital investment decisions. In general sources of capital are known to redline minority communities, and the location of manufacturing plants seems to avoid regions with high minority populations.³ The exception to this pattern seems to be when an industry consciously picks very high proportion minority communities because the wages are extraordinarily low.⁴

Gender segregation and inequality does not seem to vary as dramatically as racial inequality across U.S. regions. It seems likely that gender segregation and gender earnings inequalities will increasingly vary across regions depending on the level of local political activity and state level enforcement and legislation of equal employment opportunity mandates.

We do know that industrial restructuring affects minorities and women differently. The rise of the service sector and the decline of manufacturing has increased women's labor force participation both because of the increased demand for female labor in pink collar jobs and the declining real wages of their husbands as better paid male manufacturing jobs

disappear. The same shift has tended to hurt African American and Hispanic American males' access to employment. Industrial restructuring does not seem to have affected the relative wages of white men and white women, but it has decreased the wage gap between black men and black women, and increased the wage gap between black men and white men.⁵

NOTES TO LOCAL LABOR MARKET DISCRIMINATION AND ECONOMIC RESTRUCTURING

1. This conclusion is most strongly supported by the research of Marta Tienda and Ding-Tzann Lii, "Minority Concentration and Earnings Inequality: Blacks, Hispanics, and Asians Compared," *American Journal of Sociology* (1982, 93:141-165). The general observation that larger minority groups increase discriminatory behavior of the majority has been supported many times. Three of the most central studies in this genre include Hubert Blakock, *Toward a Theory of Minority Group Relations* (1967, Wiley), Stanley Lieberson, *A Piece of the Pie: Blacks and White Immigrants Since 1880* (1980, University of California Press), and Moshe Semyonov and Noah Lewin-Epstein, "Segregation and Competition in Occupational Labor Markets," *Social Forces* (1989, 68:379-396).
2. The contemporary accounts of business leaders encouraging racial discrimination in the South does not implicate all business leaders, but particularly those who for historical reasons have enjoyed the benefits of the very low wages of African Americans in the black belt regions of the South. Prominent historical reports on elite sponsored racism include David R. James, "The Transformation of the Southern Racial State: Class and Race Determinants of Local-State Structures," *American Sociological Review*, (1983, 53:191-208); Philip J. Wood, *Southern Capitalism: The Political Economy of North Carolina, 1880-1980*, (1986, Duke University Press); C. Vann Woodward, *Origins of the New South, 1877-1913*, (1951, Louisiana State University Press); and Gavin Wright, "The Economic Revolution in the American South," *Economic Perspectives* (1987, 1:161-78). Useful accounts of current inequalities can be found in William Falk and Bruce H. Rankin, "The Cost of Being Black in the Black Belt," *Social Problems* (1992, 39:299-313) and Donald Tomaskovic-Devey, Vincent Roscigno and Sara Curran, *Sundown on the Sunbelt? State Led Growth Without Development in a Regional Economy*, manuscript in progress.
3. Evidence for rural areas of the U.S. of capital investment avoiding high minority areas has been developed by Glenna Colclough, in two articles "Uneven Development and Racial Composition in the Deep South, 1970-1980," *Rural Sociology* (1988, 53:73-86) and "Industrialization, Labor Markets and Income Inequality Among Georgia Counties: 1970-1980," in William Falk and Thomas Lyson (eds.) *Research in Rural Sociology and Development: Rural Labor Markets*, (1989, JAI Press). For urban areas the evidence on redlining of minority neighborhoods is well known and legislative action has been taken to reduce these discriminatory practices against places. See Gregory D. Squires "Insurance Redlining: Still Fact, Not Fiction" (*Journal of Intergroup Relations* 1993, 20:17-31) and John F. Tomer "The Social Causes of Economic Decline: Organizational Failure and Redlining" (*Review of Social Economy* 1992, 50:61-74). The whole pattern of industrial disinvestment in the midwest and northeast has had the effect of isolating minority communities from good quality jobs. A good introduction to this process and its disastrous consequences for U.S. society can be found in William Julius Wilson's book *The Truly Disadvantaged: The Inner City, the Underclass and Public Policy* (1987, The University of Chicago Press). Good case studies of this process have been done by John Logan for Philadelphia ("Fiscal and Developmental Crises in Black Suburbs") and by Kenneth J. Neubeck and Richard E. Ratcliff for Hartford ("Urban Democracy and the Power of Corporate Capital: Struggles over Downtown Growth and Neighborhood Stagnation in Hartford, Connecticut) both in *Business Elites and Urban Development*, edited by Scott Cummings (1988, State University of New York Press).
4. For example, Donald Bellamy and Alfred L. Parks ("Economic Development in Southern Black Belt Counties: How Does it Measure Up?" *Rural Sociological Society Annual Meetings*) found that new manufacturing plants were least likely to locate in counties with very high minority populations, unless the wages were extraordinarily low. Similarly, Donald Tomaskovic-Devey and Vincent Roscigno ("Elite Concentration, Racial Competition and Uneven Development: Economic Development and Inequality in the U.S. South," paper presented at the 1993 Annual meeting of the American Sociological Association) found that capital investment from outside of the South avoided high black population counties in North Carolina unless the level of economic development was very low. The phenomena of environmental racism, in which toxic waste dumps and chemical recycling facilities are located in minority communities is well documented.
5. These conclusions are based on aggregate employment shifts and the research of Jennifer Glass, Marta Tienda and Shelly A. Smith, "The Impact of Changing Employment Opportunity on Gender and Ethnic Earnings Inequality," *Social Science Research* (1988, 17:252-276).

POLICY INITIATIVES

This section focuses on two public policy goals. The first is the reduction and eventual elimination of the gender and race/ethnic earnings inequalities produced by labor market and workplace discrimination. The second is the shattering of glass ceilings. If one visualizes the economy as presenting a distribution of employment opportunities arrayed with the

entry level and dead end, working poverty jobs on the left and the elite, high earnings, high power jobs on the right, the U.S. job structure might look like Figure 7. There are many low wage, low power jobs produced by the economy, most jobs are in the middle range, and very few jobs deliver high earnings and power. Women and minorities are clustered toward the left end of the distribution. Both reducing earnings inequalities and shattering glass ceilings are about moving women of all races and minority men to the right in the distribution. Reducing earnings inequalities requires that we move many women and minorities along arrow A into better jobs. Shattering the glass ceiling is about moving more elite women and minorities into the command and control positions of major corporations and government agencies. Because these top jobs are so few, shattering the glass ceiling will not greatly reduce overall gender or race/ethnic earnings inequalities unless a more diverse organizational leadership helps accomplish the inequality narrowing goals of arrow A.

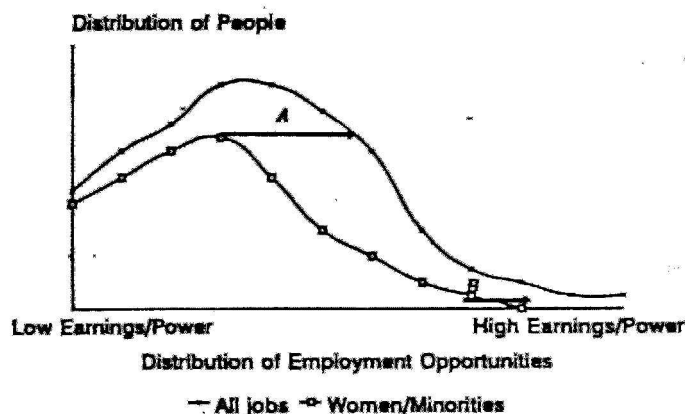
In the next section we explore public policy initiatives. This is followed by an examination of organizational policy.

Public Policy Initiatives

The Federal Government and Equal Employment Opportunity

To reduce earnings inequalities and increase the pool of minorities and women in position to break through glass ceilings we need public and private policies that open doors

Figure 7. Reducing Gender and Racial Earnings Inequalities and Glass Ceilings



which are now stuck and lower the barriers so that men and women, whites and non-whites with the same credentials end up in similar jobs.

Some of the strongest barriers to female and minority hiring and sources of segregated employment structures arise in conjunction with jobs that provide substantial on-the-job training. The issue in this case is not formal qualifications but a firm's investment in a worker's skills. If firms do not hire women and minorities into skill enhancing jobs or do not provide skill training in traditionally female or minority jobs, then they are creating substantial qualification inequities among their own workforces. Much of this skill training is informal. When employers later turn around and say that minority and female workers are not qualified for promotion, management culpability is often overlooked. This argument has clear consequences for affirmative action contract compliance reviews and discrimination civil suits.

Affirmative action compliance reviews and civil suits should be broadened to include attention to exclusion from both formal and informal on-the-job training opportunities.

One critique of affirmative action is the structural mismatch argument.¹ In this argument under qualified women or minorities are hired or promoted, struggle in a job that is beyond them, and ultimately fail in large numbers. There is clear evidence that African Americans and women tend to be more formally qualified than whites and men at comparable job skill levels.² While skill mismatches may be the occasional result of poorly executed affirmative action plans, in the vast majority of cases when a woman or minority enters a white or male enclave and does not succeed it is more likely to be a result of the performance pressures that derive from poor management, token status, and co-worker harassment. The realization that co-workers as well as employers are important actors in the workplace has implications for affirmative action as well. Current law on sexual harassment emphasizes employers responsibility for managers and co-workers actions. Affirmative action plans should anticipate and challenge backlash as well.

Affirmative action compliance reviews and civil suits should be broadened to include attention to both co-worker harassment and the potential for backlash.

The key organizational threat of affirmative action is in the backlash, not potential efficiency considerations. For desirable jobs there is generally a surplus of candidates qualified to learn how to do the job on the job. The competition for the job opening is often more important for creating a committed competitive workforce than it is for screening the perfect worker for any one job. All screening processes are imperfect. The critique of affirmative action as leading to sub-optimal job-person matches is a false critique. Managers are typically looking for satisfactory matches and realize full well that most people pick up the job specific skills as they go. If there is resistance from threatened majority group members, the picking up of these skills may be difficult.

Affirmative action compliance reviews and civil suits should challenge defenses of imperiled efficiency, and place the burden of proof for such claims upon the employer.

Since there is strong empirical evidence of pervasive undervaluing of the skills of women and minorities, since employers on average make lower investments in on-the-job training of women and minorities, since discrimination in hiring is still a problem in many workplaces, and since the reduction in federal activity in meeting equality goals across the eighties in some cases was followed by widening inequalities, it would seem imperative that federal affirmative action programs be continued and expanded.

Funding for both the Office of Federal Contract Compliance Programs and the Equal Employment Opportunity Commission should be increased substantially.

Affirmative action plans and equal employment opportunity reporting by federal, state and local employment training and job search services (especially JPTA contractors) should be systematically expanded.

State and local governments, as well as their private contractors that receive federal money should be routinely evaluated for affirmative action activity by the Office of Federal Contract Compliance Programs.

The evidence that the level of race and ethnic discrimination varies regionally within the United States, suggests that both the Office of Federal Contract Compliance Programs and the Equal Employment Opportunity Commission develop regional goals and regional funding priorities to allocate the increased funding recommended here.

The Office of Federal Contract Compliance Programs and the Equal Employment Opportunity Commission should strategically evaluate their efforts in terms of regional variation in the degree of employment discrimination.

It is unclear how much of the observed declines in race/ethnic and gender segregation and earnings inequalities can be attributed to equal employment opportunity legislation that has made discrimination and segregation less socially acceptable and how much can be attributed to the more active threats to corporate profits and autonomy from EEOC lawsuits and the actions of the Office of Federal Contract Compliance Programs.³ It is clear, however, that government intervention and legislation matters, and that affirmative action expectations and guidelines change corporate behavior. It also seems to have been the case across the eighties that when federal sanctions were reduced, corporate movement toward equality goals lagged as well. It is not so clear as to what mix of moral leadership, practical advice, and punitive enforcement is optimal. Most federal equal opportunity activity is currently perceived by many businesses to be punitive rather than practically helpful. Other federal agencies routinely provide practical advice to help the private sector achieve federal policy goals. Prominent examples include the Department of Commerce's programs to facilitate foreign exports and the Department of Agriculture's Agricultural Extension System. In addition, the federal government plays (or abdicates) a moral leadership role with regard to gender and racial issues when it routinely reports on inequality and participates in public and congressional debate. This issue of the correct mix of federal activity has not been raised explicitly in this report but probably merits future exploration. In terms of present federal activity we can make three concrete suggestions:

All federal agencies, but particularly the Department of Labor and the President's office, should take a moral leadership role in raising the consciousness of both employers and employees about the discriminatory processes that create gender and race/ethnic earnings inequalities and glass ceilings.

A yearly gender and racial employment equality report card for the nation, for localities and for specific industries should be developed and widely distributed.

Since there is some perception among businesses that equal employment opportunity reporting and federal contract compliance requirements are burdensome, government

Comparable Worth and Pay Equity

The central problem for male/female inequality is the segregated employment structure, which confines most women of whatever race or educational level to female job ghettos. This sex segregation is typically invisible since it is embedded in jobs not directed at individuals. Sex segregated employment structures need to be breached and eroded. One way to speed up this process is via comparable worth or pay equity programs. In these programs, jobs of equivalent skill are awarded equivalent pay to correct for historical inequities that reflect the sex (or race) composition of the job. In the short term, comparable worth programs create more equally paid segregated job structures. It seems reasonable to expect, however, that as wage rates rise in typically female jobs, males will begin to enter those jobs.

To a lesser extent, the race composition of jobs affects the character of the work and its compensation. The process by which race composition comes to color the labor process and compensation policies can be expected to vary dramatically from firm to firm. In firms where race segregation at the job level is high, consequences may be dramatic. In some public and private organizations race oriented comparable worth programs and racial desegregation are necessary in order to reduce earnings inequalities. Some studies find that race composition is a very strong source of payment levels in firms while other analyses find no race composition effects. As we have seen in the review of past research, racial discrimination and inequality varies regionally across the United States. This means that comparable worth studies and pay adjustments will be powerful tools to reduce racial earnings inequalities in cities and regions where inequalities are largest.

Comparable worth job analyses should be pursued to reduce racial and ethnic earnings wage inequalities in firms where the minority population is large enough that organizational practices might produce race typical jobs as well as in labor markets with high levels of observed racial discrimination.

While comparable worth or pay equity studies can be initiated by employers, the more common approach in the United States is an employee or union led civil suit for comparable worth.⁴ In these cases, the employee group alleges that some jobs are

undervalued because of their race or sex composition. Jobs are evaluated in terms of compensable characteristics such as physical difficulty of work, training time, prior experience, required credentials, authority and the like. If, after these compensable job attributes are statistically controlled for, it is found that jobs continue to be paid less as the percent female or minority in them rises than the court may order or the organization may elect to raise the pay level of the jobs that have been undervalued.

While pay adjustments to jobs that have been discriminated against are a useful organizational policy they have in practice been limited by the reality of organizational politics and prejudice. As we have seen, jobs that are typically filled by women and minorities tend to get undervalued in the workplace. From a comparable worth perspective this means that they are not being fully compensated for skills that are required. This is self evident when a secretary gets paid less than a loading dock laborer. It is less evident, however, when the skills attached to typically female jobs are not recognized as skills at all.⁵ This means that pay equity adjustments must respond to both direct wage discrimination and a male biased definition of what is skill. This has a clear policy implication for pay equity studies:

In the design of pay equity studies, it is crucially important that the skills typically associated with women are recognized as skills and treated as compensable.

The more fundamental limitation of comparable worth initiatives that arises out of the discussion in this report has to do with the withholding of skill training and other presumably productivity enhancing amenities from jobs that are typically filled by women and minorities. The sex and race stereotyping of jobs is not only about wages. Since comparable worth adjustments control for skill requirements and then adjust wages depending upon the consequences of gender and race employment composition, all prior skill discrimination against minority jobs or women's work is treated as legitimate. This leads to an additional policy implication:

Comparable worth, pay equity conceptualizations and methodologies need to be expanded to include not only wage discrimination against classes of jobs, but also skill, authority and career ladder discrimination in the design of jobs filled primarily by women

or minorities.

The current role of public policy toward comparable worth initiatives is limited to the courts. Proactive leadership by the public sector, with self-studies and voluntary pay equity reevaluations would go a long way to making the de-gendering and de-racialing of work normative, on-going and widespread. A general federal level comparable worth law that mandates equal pay for comparable skill levels, similar to the ones that exist in Great Britain or Australia, however, would go far to strengthen workplace equality in the litigious United States.

Training and Labor Market Policies

A significant proportion of race inequality is a function of inequality in education and labor market experience resulting from longer and more frequent unemployment spells. In the U.S., many minorities because of past and present discrimination grow up in working class and poor households in disadvantaged communities. Since local property taxes are the primary funding source for education in most places, the class composition of communities affects the resources of the community's schools. Minority communities are additionally disadvantaged by capital investment patterns that bypass places with large minority populations. To reduce racial inequality requires education policies that reduce class inequality in access to education and community development policies that counteract typical capital investment patterns that bypass minority communities. Two public policy initiatives can be derived from this class based argument:

Educational opportunities in minority neighborhoods must be enhanced if real and perceived skill deficits are to be eradicated. This could be partially accomplished through federal support of level public school funding proposals by states.

Capital investment schemes that target communities with few jobs, substantial worker displacement or primarily low wage jobs need to be developed.

One area where the United States has clear room for improvement is in job related skill training, retraining and labor market operation. The U.S. labor market is basically anarchic. Employers must seek out workers and make uneducated guesses about their skill

levels. Workers must seek out employers and sell themselves. In both cases, non-productivity related attributes such as race and gender can be powerful, if misleading signals, about appropriate job-person matches. Employers and employees might be better served with a labor market structure where the government has a role in certifying skill training, providing skill re-training and matching employees to employers. In the current U.S. system employers bear the costs not only of training, when they provide it, but also of bad job matches. Employees face discrimination and unnecessarily long job searches. Society pays the price of an under-skilled labor force and under-productive economy. In addition to a more active role of federal and local governments in training, we should seriously consider the possible utility of job search/job information clearing houses. This idea will likely be met with some skepticism, since under current practices it is only the most desperate workers who look for jobs through state employment agencies. It seems reasonable, however, to expect that some centralized source of information about available jobs and jobs seekers, their respective qualifications and some matching mechanism might short circuit the potentially inequality reproducing flow of information through personal networks or discriminatory employment agencies.

Any programs that are developed to increase the quality of skill training in the United States should be sensitive to gender and race/ethnic inequality.

Programs to increase the efficiency of information transfer between employers and job seekers should be designed to reduce inefficiencies in the labor market, including statistical discrimination

Private Policy Initiatives

Many corporations are committed to creating more equitable workplaces. While there are no doubt many sources of this commitment, accomplishing equity with only the tools of relative preparedness and attempts to admonish prejudiced employees cannot succeed. Organizations interested in promoting fairness in hiring, promotion and pay along race and gender lines must pay careful attention to the sources of internal sex and race job segregation and its consequences for how the work is organized as well as paid. Are women and minorities excluded from desirable jobs? Are typically female or minority jobs paid less

than white male jobs at comparable skill levels? Are they also given less training time, promotion opportunity, task complexity and autonomy? If these are all the case, than it should be no surprise if few women or minorities turn out to be promising candidates for promotions. Nor should discrimination and pay equity lawsuits be a surprise.

In large organizations it is quite common to have relatively strong public commitments to equal opportunity by top management but difficulty in implementation. Directives from the top of the organization must filter down not only through the formal hierarchy and personnel, but also through the informal power structure of the firm. The importance of line managers and co-workers in the production of sex and race segregated employment structures cannot be ignored. On the other hand, if typically female or minority jobs have traditions of low wages and low training investments by the corporation, line management requests for increased pay rates or operating budgets may threaten their career prospects unless the requests are supported and encouraged by corporate leadership.

What constitutes strong leadership for equal employment opportunity? The answer is the same as it would be for any business policy. Diversity goals need to be incorporated into the business plan, with positive and negative sanctions for line, middle and division management that correspond to fulfilling the business plan. Diversity planning is required. What might go into a diversity plan? The first component should be a self-study of current hiring, promotion, training and wage practices. Self-study can reveal the bottlenecks to promoting organizational diversity. The findings of such a study should then be used to make adjustments in career ladders, skill training and wage rates. Diversity goals could then be set at appropriate levels in the corporation. Managers and executives at those levels should be evaluated for meeting diversity goals along with other corporate goals. Evaluations should be followed by sanctions; promotion or increased responsibilities for the successful, transfer or decreased responsibility for those who fail to meet goals, and dismissal for those who resist and subvert the process. The common corporate practice of tolerating or at most transferring (rather than firing) racist or sexist managers and co-workers sends a clear signal that racist and sexist behavior is acceptable, if not endorsed.

Corporate evaluation of the diversity implications of current hiring, promotion, training and wage practices can be used to establish diversity plans with clear goals.

Managers need to be evaluated, rewarded and punished for their diversity track record.

Many companies that pursue serious self-studies will find that jobs that are disproportionately female or minority are paid less, trained less and have shorter or no career ladders. Rather than wait for a pay equity civil suit, these firms can implement job wage adjustments over a reasonably short period of time. Employers may resist increased wage bills or the backlash and disruption that may result from the transfer of wages from some employees to others. An attractive alternative is for firms to make greater investments in the skills of typically female and minority jobs and increase wages as skills rise. This will have the effect of reducing organizational skill and wage inequality. It will also increase the attractiveness of typically female and minority jobs to all workers thus reducing segregation. Most importantly, it will increase the skill levels of the entire labor force, hopefully leading to higher productivity across the board.

The implementation of diversity plans will typically require some level of pay and skill equity adjustment.

There is strong evidence that race and gender inequality decline in firms with more formalized employment relations. Employment relations that rely on traditional assumptions and unmonitored interaction patterns are more likely to produce discriminatory workplace practices. When line managers are accountable to both employees and upper management in terms of formal rules, exclusionary practices are less common. When the employment relation is characterized by formal job descriptions, including explicit listings of required credentials and experience, where employees are seen as having rights as well as duties (often through an employee handbook or union contract), and when job openings are formally advertised or posted, traditional exclusions on the basis of sex or race are less likely to occur.

Corporations committed to reducing and eliminating gender and racial barriers should consider formalizing hiring and promotion criteria, particularly in areas where they have found resistance to equal opportunity or failure to meet diversity goals.

While formalization of the employment relationship is linked to lower levels of sex and race segregation, it is also linked in many people's minds to the general organizational machinery of bureaucracy. When labor unions or governments require formal procedures to insure equitable non-discriminatory outcomes, management and owners often chafe at the "bureaucratic" restrictions. Bureaucracy is about control. When rules are written, procedures specified, jobs described, employee's (and often consumer's) behavior is controlled. Bureaucratic control is typically aimed at two potentially contradictory goals. The first is to produce the organization's product or service with the least cost and most efficiency. The second aspect of bureaucracy is about hierarchy and control for control's sake. It typically increases race and gender inequality in the workplace. The proliferation of job titles within hierarchical competitive career ladders creates the environment for discriminatory exclusion of women and minorities from desirable jobs and the creation of jobs that are sex and race segregated. Tall managerial hierarchies also potentially insulates line management from the equal opportunity goals of top management. Such hierarchies produce the control oriented inertia that gives bureaucracy a bad name. They also create a class of advantaged employees with advantages to defend.

The creation of leaner management systems may reduce (over the long term) the competitive pressures that exacerbate co-worker and supervisor resistance to diversity.

Organizations intent on eliminating gender and racial discrimination against people and jobs must be sensitive to this issue of advantage. Policies designed to admit women and minorities into white male preserves will be resisted. The level and intensity of backlash to diversity programs is a possible indicator of the underlying threat to advantage. Sexual and racial harassment are also common responses of employees threatened by integration.

Diversity plans should contain explicit measures to forestall and negatively sanction co-worker resistance.

Finally, there are special problems as women and minorities approach the most desirable jobs at the top of the organization. Targeted plans for breaking through glass ceilings are typically required. Since the problems of advancement are increasingly about

access to informal networks, heightened similarity, trust requirements, and the breadth of career preparation, diversity plans at the top of the organization have to be about sponsoring and nurturing talented individuals. Most corporations have formal or informal programs to nurture "stars" or "fast track" managers. These programs need to consciously include minorities and women. Since most of the barriers at the top are informal, formal fast tracking is not enough. Mentoring programs, particularly mentoring by top managers irrespective of their race, ethnicity, or gender can be an important entree to both informal power structures and the insider perspective that builds trust and competence. Diversity support groups may be important as well, but since social similarity is so important at the top, it is crucial that they not become the source of stigma or the focus of backlash.

Shattering the glass ceiling requires the conscious nurturing of the careers of exceptional workers of all races and genders, and conscious attention to the additional isolation of and pressures on fast track minorities and women.

NOTES TO POLICY INITIATIVES.

1. This argument, as well as a more general critique of affirmative action is developed in Thomas Sowell's book *Preferential Policies: An International Perspective* (1990, Morrow).
2. This point is often overlooked. Research on earnings and job inequalities almost always demonstrates that women and minorities receive lower payoffs from their human capital investments. Concretely this means at any given wage or skill level the average minority or woman will have more education or experience than whites or males at that level.
3. There is evidence that the activities of the Office of Federal Contract Compliance Programs have been more effective than the more diffuse threats of EEOC lawsuits. On the other hand it was the OFCCP which was most weakened between 1980 and 1992. See particularly the review of the research by Jonathan S. Leonard, "Women and Affirmative Action," *Journal of Economic Perspectives* (1989, 3:61-75).
4. Undoubtedly many firms undertake comparable worth self studies and make quiet wage adjustments. Self studies become public when undertaken by state and local governments. They may then become the object of employee lawsuits or union negotiation. In general, state and local governments in more liberal regions of the country and with relatively strong collective bargaining units have been most likely to implement formal pay equity adjustments. See Paula England's *Pay Equity* for the most complete evaluation of these programs. Useful discussions of the limitations and implementation of pay equity initiatives can be found in Joan Acker, *Doing Comparable Worth: Gender, Class and Pay Equity* (1989, Temple University Press); Anne M. Hill, and Mark Killingsworth (eds.), *Comparable Worth: Analysis and Evidence* (1989, ILR Press); and Mark R. Killingsworth, *The Economics of Comparable Worth* (1990, W. E. Upjohn Institute).
5. Ronnie Steinberg and Lois Haiguer ("Equitable Compensation: Methodological Criteria for Comparable Worth," in Christine Bose and Glenna Spitz [eds.], *Ingredients For Woman's Employment Policy*, 1987, SUNY Press) point out that, although two-third of U.S. jobs have some form of evaluation mechanism, tasks in typically female jobs are often overlooked. They list twenty-seven invisible skills typically associated with women's work. In recent work Paula England and colleagues have raised the issue of jobs requiring nurturing skills to be almost universally ignored as real job skills. There is a discussion of the ignorance of nurturing skills in job evaluation schemes in England's monograph *Comparable Worth*. Empirical evidence that wages actually fall with increased nurturing skills can be found in the unpublished paper "The Gendered Valuation of Occupations and Skills: Earnings in 1980 Census Occupations," by Paula England, Melissa Herbert, Barbara Stanek Kilbourne, Lori Reid and Lori McCreary Megdal, Department of Sociology, University of Arizona.

RESEARCH INITIATIVES

This review reveals substantial gaps in our knowledge of race and ethnic groups other than African Americans. Even for African Americans, few gender comparisons have been done. The failure to document fully the situation of Hispanics, Asians and Native Americans, as well as gender differences beyond the white population, probably reflects the interests and composition of social scientists doing research in this area. Systematic analyses of gender and race/ethnic earnings and occupational inequalities using already available data should be supported. Analyses of past Public Use Samples of the Census of Population, Current Population Surveys, and Equal Employment Opportunity Commission data could yield large benefits in descriptive information on both the level and trends in earnings and occupational inequalities. Descriptions and analyses of regional variation in race/ethnic inequality is sorely needed. National statistics that suggest earnings convergence between black and white women and Asian and white Americans no doubt hide substantial regional variations. Regional analyses of existing data are not only necessary to establish what the levels and trends are but also to focus policy efforts in those labor market areas where racial and gender inequality is most pronounced.

Systematic research with existing large sample survey data to describe the level and trends in gender and race/ethnic earnings and occupational inequality are necessary.

Systematic attention to regional and labor market variation in the degree and trends in race/ethnic inequality are sorely needed to inform policy effort.

There is a clear need to develop a sustainable national research capacity to monitor and evaluate gender and race/ethnic inequality, which is more inclusive of under studied groups than present research practices. The existence of substantial unanalyzed data on gender and race/ethnic inequality in decennial Public Use Samples of the Census of Population and Housing, yearly Equal Employment Opportunity Commission reports, and monthly Current Population Surveys suggests that the creation of a *Labor Market and Employment Equity Research Institute* is probably warranted. Such a center could be housed in the Departments of Labor or Commerce, but probably would be cheaper and more

insulated from federal Executive transitions if housed in a University setting. The Institute for Research on Poverty, currently at the University of Wisconsin might present a useful model. The Institute was created to concentrate national poverty research during a period of federal research retrenchment. The Institute is interdisciplinary and the University location is selected through a competitive proposal process.

The creation of a Labor Market and Employment Equity Research Center, either in a federal department or a university based research institute, is required if more complete and inclusive use of existing and future data on gender and race/ethnic inequality is to occur.

Current data collection through the Current Population Survey and the National Longitudinal Surveys could be strengthened with increased attention to the basic causal processes which lead to race/ethnic and gender inequality. Current data collection emphasizes information on the occupation and industry of employment and human capital traits. Since most discriminatory processes happen at the firm and job level, the development of annual or bi-annual equity modules for the Current Population Survey and/or the National Longitudinal Surveys are important goals. Survey data which is not currently being collected, but could be collected with little or no increase in Federal spending, include the race and gender composition of the jobs (rather than national occupational composition) people hold, the provision of formal and informal training at work, promotion opportunities attached to current jobs, and some information on organizational characteristics. These types of information are already successfully collected in more specialized survey applications and would offer powerful new sources of information if collected for large national samples. They would also inform discussions of regional inequalities that are now largely speculative.

New equity survey modules, including information on job and firm characteristics of respondents, should be added to existing national surveys.

The conclusion that there is substantial conscious and non-conscious discrimination in hiring and promotion is based on substantial research, most of which does not directly measure discrimination in hiring. It is possible that self-selection into jobs that reflect the

flow of job information through formal channels and informal personal networks creates some, perhaps substantial, race/ethnic and gender earnings inequality. Research in this arena could have the added impact of providing policy relevant knowledge for future federal, state or local labor market information initiatives as outlined above. The development of a body of knowledge in this field will require interviews with job seekers, employers and public and private employment agencies in order to develop better understanding of how information on jobs is acquired. Additional research on large nationally representative samples, most appropriately the Current Population Survey and the youth panels of the National Longitudinal Surveys, need to be fielded to explore the job search/information process. These studies need to focus not only on job search method, but the source and content of information, the relationship between the source of information and the firm, and the characteristics of jobs including their race and gender composition.

Research on job search patterns and the types of information about jobs received through personal networks and private and public employment agencies are sorely needed.

The research on why and how employers make discriminatory hiring and promotion decisions is quite thin. Interviews with employers that pay attention not only to discriminatory outcomes, but also to the process of decision making, gender and race/ethnic job steering, and the reasons employers give for hiring and promotion decisions are sorely needed. These studies should also investigate when it is that employers consciously rely on informal referrals and public and private employment agencies to screen potential employees by race, ethnicity or gender. Hiring audits may be useful as well in order to rigorously document the degree of race and gender based sorting at initial entry into the firm. Both interview and audit studies need to be regionally diverse and to focus on all types of jobs, not just those entry level jobs that are advertised in newspapers. This research should be designed not only to clarify our knowledge of how job sorting by race, ethnicity and gender occur, but also to help the Department of Labor provide practical advice to companies and consultants trying to establish diversity business plans. Hiring audits could also be used to gather evidence for punitive actions.

Research on how race and gender enter into the decision making process of employers is sorely needed. This research needs to be regionally diverse and sensitive to the level, quality, and typical sex and race composition of the jobs in question.

If and how employers use current employee referrals and public and private employment agencies to consciously discriminate needs to be explored.

Hiring audits can be useful tools for demonstrating the absolute level of discrimination as well as providing evidence for punitive actions against specific firms.

EEOC reports could be used to identify exceptional companies that have reduced or eliminated gender and racial inequality for intensive case studies to highlight best practices.

The primary policy payoff from studying employer decision making will be in the development of a clearer picture of just how inequalities are created. The government still needs access to information that will support punitive actions for recalcitrant companies and federal, state, and local government units. Current data gathering approaches for punitive enforcement of equal employment opportunity legislation has not been reviewed in this paper. They are substantial and Equal Employment Opportunity reporting in particular is often seen as burdensome, particularly by smaller companies. Some effort should be made to evaluate if current EEOC firm level data is being used to it's fullest potential and if current firm coverage is consistent with the types of enforcement activity that is actually going on. The focus in EEOC reports on gross occupational categories means that the vast majority of job level segregation is hidden. Since firms don't have standardized job titles more detailed reporting is probably impractical. Perhaps a requirement for average wages or salaries by gender and race/ethnicity within the current occupational groups would increase the utility of EEOC reports for identifying problematic firms.

Evaluate the current and potential utility of EEOC reporting for identifying problematic employers.

Include wage and salary information within occupational groups on EEO1 reports.

Although they are probably no longer policy relevant in the past the Department of Labor collected substantial job level data within firms as part of the Area and Industrial

Wage Study Programs and job evaluation research for the *Dictionary of Occupational Titles*. Most of this data is now quite old and no longer being collected. These data are currently not available for academic researchers interested in documenting and explaining the job segregation process at the firm level. Although the lack of policy relevance suggests that the Department of Labor should not fund the analyses of these data, it would enhance the ability of the research community to develop theory and descriptions of the segregation process if these data were publicly cataloged and made available to interested researchers.

Catalog and make available to the research community archived Department of Labor data on job sex and race segregation.

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